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THE CORNELL COUNTRYMAN

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ANIMAL HUSBANDRY ISSUE

WHICH BREED IS BEST?

By VARIOUS AUTHORS

THE MILK QUESTION

By M. C. BURRITT

THE FARMER AND THE FORESTER

By HENRY S. GRAVES

HOME ECONOMICS IN PRINT

By HELEN CANON

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By H. H. WING

DECEMBER

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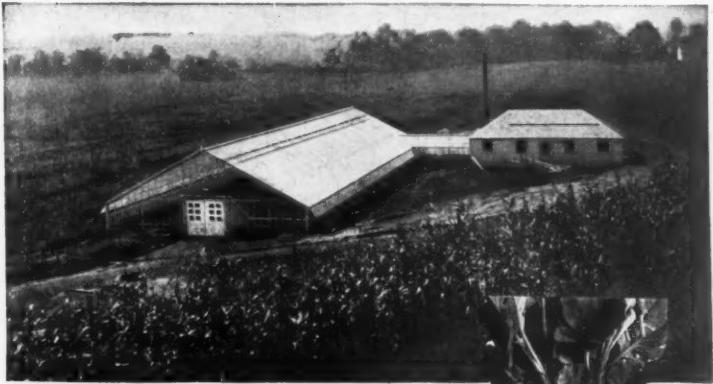
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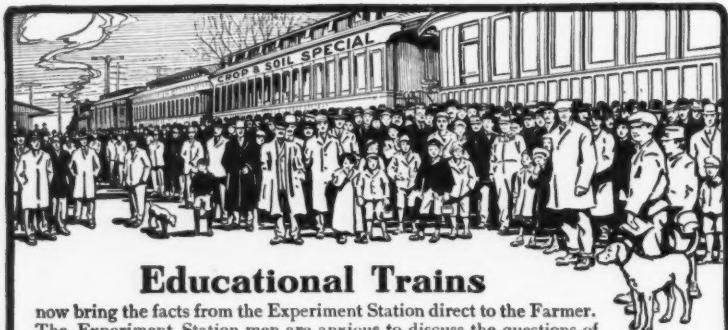
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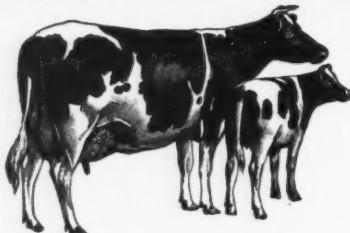
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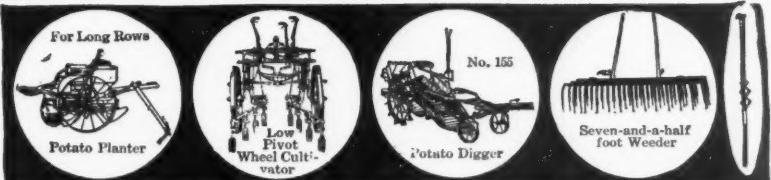
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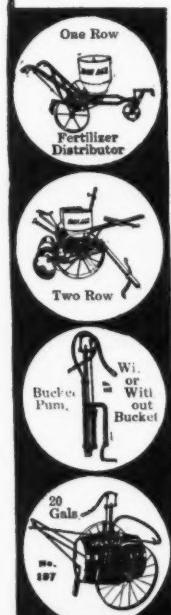
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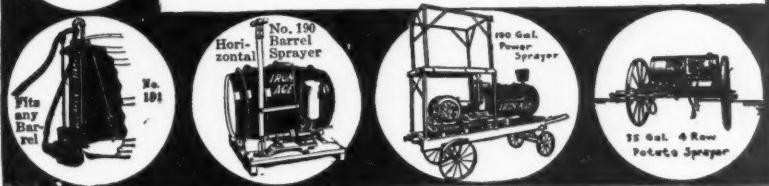


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There are already many places in this country where good shooting is to be had in abundance due to scientific game breeding. It is quite possible that one or more of these is located within easy reach of your home. If you are interested we will gladly advise you regarding this if we have the information in our files. If not we will tell you how to make good shooting in your locality and put you in touch with others who are interested in this.

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Taughannock Falls

By WILLIAM PRINDLE ALEXANDER, '17

Cleaving the rock with unrelenting power,
The rushing flood majestically falls,
A thing titanic, trembling in a shower
Of silvery spray, where heaven-daunting walls
Encircling still, in fearful grandeur tower;
A scene that like a thing divine entrals,
A force that makes the pigmy spirit cower—
Sublime Taughannock reigns in regal halls!
Laying the heart of countless eons bare
This stream has kept its sinuous course amain,
Has cleft the ancient rocked-browed hill in twain
And nature's scroll left open unaware,
That now the eye of wondering man may gaze
On written runes of earth's far primal days!

THE CORNELL COUNTRYMAN

Vol. XIV

ITHACA, N. Y., DECEMBER, 1916

No. 3

Some Observations on the Milk Question

BY M. C. BURRITT

State Director of Farm Bureaus

EVERYONE who has been in the milk sections and attended meetings of dairymen must realize that New York dairy farmers have been aroused more over the milk question than ever before. I have never seen them more thoroughly aroused over any question.

What are some of the causes? Why is this so? It has come about primarily because the dairy industry has come into a very bad condition; because milk was being produced and sold at a loss; because dairymen were not getting a fair return for their investment and labor.

Two Possible Causes

Undoubtedly the first incentive for the action that has come this fall was the successful Chicago milk strike. It was a pertinent example for the dairymen of New York State. They saw what had been done. They believed they could do the same thing.

The second incentive to this movement was, I believe, the collection and wide distribution of facts as to the cost of milk production. This came about through the testimony of experts here at this college and others over the state, the testimony of farmers, and through the large amount of data collected by farm bureaus of the state and presented to the Wicks Committee. Certainly the advantages which a Legislative Commit-

tee has in the matter of publicity is a very great one. The educational agencies of this state have for years been calling attention to the high cost of milk production. But the Wicks Committee got more facts before the people of this state in six weeks than these educational agencies had been able to in many years. They were the same facts. Daily papers paid little attention to what was said by educators. But,—offer the same testimony before a Legislative Committee, and it is published by all the papers, often times in big headlines, and nearly everybody reads it. So, it is evident that the getting of this data before a large number of people, focusing public attention on this cost of production, was a second stimulus.

Then, of course, we have that farmers' organization without which this fight could not have been won, the Dairymen's League, which has proved that it was a good organization, that it could hold its members together. There were many people who thought it never could be done—but it did hold, and it did carry the day. The work of this organization was ably supplemented by the efforts of Commissioner Dillion of the State Department of Foods and Markets. These things are history.

The Movement Sound

This movement has been essentially

sound and right, and for two reasons in particular. First, the dairy industry was in an unsound condition,—it is bad business to be producing anything at a loss. Yet, that milk was being so produced has been proved beyond a doubt. In the second place, the movement has come from farmers themselves, it was not worked up from overhead. In fact some leading men tried to put the brakes on it. It has been the farmers themselves all over the state who have carried the day. A movement that grows up of itself, and gains such proportions as this movement has, usually has some good reasons behind it.

The Part of Educational Agencies

We are interested in the relation which educational agencies have had and should have to this movement. I am going to put this on the broad ground, not farm bureaus in particular, but of all educational agencies. The position of the farm bureaus is very little different from that of other educational agencies, except that it is closer to the problem. It is comparatively easy to stand away off and lay down lines of action but more difficult to interpret them to farmers themselves.

A few of us have perhaps forgotten that we are the representatives of the public,—of all the people. If we were to define people, we would have to say that they are consumers as well as producers. All educational agencies, practically, are supported by public funds,—by taxation. In other words, all of the people pay for their support. Therefore, these funds ought to be expended in the interests of all the people, or at least, in the interests of the majority of the people. For the most part this principle has been kept in mind. In a few instances, perhaps, some of us have forgotten. But I have little criticism for such, as I know we live in communities where ninety per cent of our people were excited about the subject and acted under stress. It was the first great test of the farm bureaus in this state. They have stood the test well,—

they have used the opportunity to serve. It has been a source of very great gratification to me that farmers have turned to the farm bureaus at this time for help, for leadership and constructive coöperation, and made every legitimate use of them. That is what they are for. We have always talked about the farm bureaus being agencies for the betterment of agriculture. I am very glad that farmers have at last realized this fact, and made use of it.

A Public Question

The only justification in using the public's funds, to do educational work on this milk problem and taking the part which has been taken is that it is in the interest of the general public to do so. I believe that we are fully justified on that ground, without any further arguments. It is as much in the interest of the great consuming public in New York City to have a sound, profitable dairy industry back in its tributary country as it is in the interest of the farmers themselves. Unless, with reasonably efficient methods, milk can be produced with a reasonable profit and at wages that are at least \$2.00 per day, the most intelligent of our farmers, will not be encouraged to produce more milk, and sooner or later the consuming public will be forced to take its choice of doing without milk or paying the price necessary for its production. Therefore we are and have been justified as an educational agency in assisting in this situation, assisting in the organization of dairymen so that they might command what was their just due, and in helping to put the industry upon a sound basis. This is the justification, and not the fact that we are helping farmers as a group for their own selfish interests. If the state or the nation were to make appropriations for the purpose of developing industries to help farmers only, it would be class legislation in which none of us believe.

Not Solved Yet

The question, I think most of us real-

ize, is by no means solved. In fact, it is just raised. The price of milk this winter is a temporary question, and important only for the next six months. The permanent and the important question is, whether or not the dairy industry shall continue under the present improved conditions. If it is to do so much constructive work must be done. That constructive work is, it seems to me, going to fall very largely upon our educational agencies, and particularly on those agencies that are on the firing line,—the farm bureaus. They in turn will have to depend on the larger, stronger institutions that the State and Federal Governments have established.

To illustrate some of the possibilities, which the farm bureaus have for getting the facts before farmers I would like to call your attention to a few figures. During the six weeks from September 1 to October 15, 461 dairy-men's meetings attended by 43,517 farmers, were addressed by the farm bureau managers. In other words, this agency has the possibility of securing the attention and helping to direct the thoughts and efforts of 25,000 to 30,000 farmers a month. If such work, or anything like it, can be carried on this winter, there is big opportunity to exercise a great deal of influence on the problem. The total number of farm bureau meetings held in counties during a normal month has ranged from 86 to 300, and the attendance from 3,200 to 18,000. During September the farm bureaus held 336 meetings, with 33,556 in attendance. During this month too those in attendance were nearly all men who were producing milk and they were there for business.

A Constructive Program

The time is ripe for a constructive forward looking program, and for united effort to try and meet the problem. There has therefore been worked out a plan of action which I should like to outline here. This plan has been endorsed by the departments concerned at

the college and by the conference of farm bureau managers held at the college recently. We hope it will lead to the organization of all the educational agencies in this state that are ready to help with the problem to get every possible agency in the state lined up solidly behind this program, which is the only way it can be put through.

We have stated the object of the project as follows: "To make permanent the present improved conditions in the dairy industry in New York State by promoting with information and educational effort, (1) Increased Efficiency, (2) Coöperative Ownership, and (3) Increased Consumption of Milk." Very little of this is new. What we are proposing is to organize it, and put back of it unity of effort.

The part of agricultural educational agencies will be to furnish information as to how to secure:

1. *Increased efficiency* through—
 - (a) Dairy improvement associations
 - (1) weighing milk and feed
 - (2) discarding low producing individuals
 - (3) feeding balanced rations
 - (b) Growing and seeking to buy feeds cheaper
 - (c) Dairy farm management analysis
 - (d) Keeping accounts
 - (e) Improving the quality of the product
 - (f) Breeding of better cows.

I believe that the consumer at the present time is, comparatively speaking, quite willing that the dairyman should have an increase in the price of his milk. I think he is governed by the facts that have been printed by the press of the state, but, if the consumer should by some chance become convinced that the farmers are not efficient, and that this increased price of milk is not necessary, we are headed for trouble. If you do not believe that, remind yourself what happened to the great sympathetic strike in New York City,—smashed in less than ten days by public opinion. So would this milk price question have been smashed had not public opinion

(Continued on page 222)

Washington at Work

A series of articles furnished exclusively to the Association of Agricultural College Magazines. Bureau Chiefs of the United States Department of Agriculture describe from the inside their work for the farmer.

III. THE FARMER AND THE FORESTER

BY HENRY S. GRAVES

Chief, United States Forest Service

THE main business of the Forest Service is to care for the National Forests; but it does many other things and in doing them serves the farmer directly. Even in the administration of the National Forests, the interests of those who till the soil, or raise cattle, are given foremost consideration.

It is a mistake to think there is a gap between forestry and agriculture; they rightfully belong together. Nothing is farther from the truth than the picture of the forester trying to get good land away from the farmer in order to raise timber on it. Forestry, as applied to farmer's woodlot is simply one phase of agriculture.

How the National Forests aid farmers is told by the petition of more than a hundred of them in the Kootenai Valley of Montana, who had heard that the Government might do away with the Kootenai National Forest. They know that if the Government let go, the land would be taken up by timber speculators, to be held for years without development. No more neighbors would come, no roads and schools, nothing of the progress possible under the plan of making good farm land available for permanent settlers under the forest homestead act.

Where timber is the most important natural resource, its destruction means the economic abandonment of the region, and farmers who have established themselves there are forced to move out. In such regions, and there are many of them in the western mountains and the Appalachians, the presence of National Forests means the permanence of agriculture in the valley lands.

Many thousands of farms are being developed in the National Forests themselves and more will be developed as the agricultural lands are classified and opened to settlement.

Special benefits to the farmer on, or in the neighborhood of, National Forests include the protection of water sources, particularly for irrigation, the free use of timber for home building, the free grazing of domestic animals, the building of roads by the Forest Service, and the market for farm products afforded through the maintenance of permanent lumbering industries which depend on a lasting supply of government timber. They give the farmer a recreation ground, particularly beneficial as a relief from the hot dry valleys of the Pacific Coast during the long summer season of no rain.

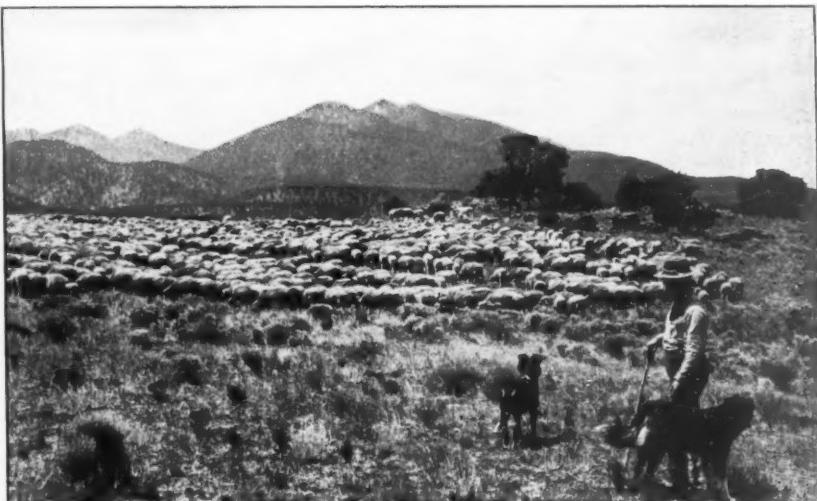
The farmer in the east is most likely to be interested in forestry through his



own woodlot, probably left as a remnant of the original forest out of which the farm was carved. In many cases this woodlot has been long neglected, and therefore not worth keeping on the ground it occupies. Even where the woodlot is in good shape, and has been amply protected from fire and overgrazing, the farmer does not know how to dispose of the timber crop, nor how much that crop is worth.

thus prevent the new growth which should be coming on to renew the woodlot. Local and State organizations exist for the protection of timberlands from fire, and any farmer may obtain from the Forest Service a list of such organizations, or plans for their formation where they have not yet been established.

Much harm is done to timber and to shade trees by insects and disease. In-



FREE GRAZING ON NATIONAL FOREST LANDS

To help in this situation the Forest Service supplies information on managing and marketing farm timber, and has worked with various State authorities in getting and printing facts about woodlots for a given region, and about the possibilities of sales of farm timber in that region. Two publications* issued on the subject of farm woodlots give all the facts which a farmer needs to have.

The first point in woodlot management is to protect the timber from fire. The very smallest ground fires are hot enough to kill tender seedlings and

fected or infested trees may be discovered and treated in early stages; and damage may be prevented or reduced by timely action. Advice may be had as to time and methods of cutting for given species, localities, or markets. Information on the properties of woods and their relative values for farm use can likewise be had, and such facts may mean a considerable difference in the cost of a building and in the permanence of a structure.

In the prairie States, advice is wanted as to the right trees to plant; for shelterbelts or windbreaks, for the produc-

*Farmers' Bulletin 711, U. S. Department of Agriculture, Washington, D. C., "The Care and Improvement of the Woodlot," and Farmers' Bulletin 715, "Measuring and Marketing Woodlot Products." Both of these will be sent free on application to the Department of Agriculture at Washington, as long as the supply lasts.

tion of fuel wood or farm construction and repair material. The service tells where suitable planting stock may be bought, and how it should be planted, though it aims mainly to put the inquirer into touch with his local or State agencies, such as experiment stations, State forestry departments, or forestry associations. These agencies should be in position to furnish the facts of most use to their own localities, and may thus prevent the planting of weed trees, on the representation of a glib agent, or the planting of a tree widely advertised but entirely unsuited to the region, as to soil or moisture conditions, or frost-hardiness.

Anyone who has a woodlot to handle, or who plans to plant a forest tree for any purpose, and who asks the Forest Service for help may be assured of receiving such help, either from the Service itself or from the best local authority to which the inquiry may be referred. All such queries should be accompanied by full details so that every phase of the subject may be considered.

Naturally, all the information thus given out is based upon the most careful experiment and investigation. A part of the Forest Service force is engaged in the work of research; though, as first stated, the administrative work of the Service in connection with the National Forests is its chief job.

In the beginning, however, the Service was merely a scientific organization. In the centennial year the Government made its first real step in forestry by appointing a special agent to study forest conditions in the United States. Five years later a division of forestry was created which was mainly a place for study and for gathering information. It then employed only eleven persons, only two of whom had any training in forestry, and its total appropriations amounted to about \$30,000 a year. In 1901 it became the Bureau of Forestry, and in 1905, the Forest Service, charged with the administra-

tion of the National Forests, which were no longer mere "forest reserves" set aside from use, but "National Forests" managed to be of value to people who could develop their resources of wood, forage, water recreation, and the like, and yielding, to the people of the country as a whole, continuous, annually growing receipts in return for the use of the National Forest resources. Last year these receipts amounted to two and one-half million dollars.

Now nearly 4,000 persons are required to do the work of the Service. The management of the National Forests is in the hands of a field force on the ground. Even a large part of the administrative work is done from headquarters offices in the far West, where most of the National Forests are situated, and only a relatively small part of the organization is in Washington.

Each forest has its Supervisor, who lives on or near it, and the forest itself is divided into ranger districts, each in charge of a forest ranger. The ranger comes in closest contact with the users of the forest's resources. He is a comparatively new figure in the peoples' service and his pine tree badge is the latest symbol of the Government's helpfulness to its citizens.

The ranger must be a man of varied activities and of wide experience. The marine, with his globe-and-anchor badge, is, according to Kipling, "soldier and sailor, too;" the rural postman, bearing the device which depicts a pony-rider, is called upon, just because he is in Uncle Sam's employ as a public servant, to do many things besides merely delivering the mail; but the forest ranger with the lone pine on his little bronze shield is often the only representative of vested authority for many miles around, so he is likely to be called on for any and all sorts of help when the conditions are still primitive, with pioneer vicissitudes. His simple official duties require him to know something of lumbering, of cattle and sheep raising, of

mining, of surveying, of sanitation, and of a hundred and one other things that go to make up his daily tasks.

The average ranger district covers a little more than seventy thousand acres, generally of pretty rough and broken country. In the best managed forests of Europe it has been customary for the officer equivalent in rank to the American forest ranger to look after only an average of seven hundred acres.

In respect to the National Forests it

may be said that the people of the country have expressed their irrevocable belief in Government-owned forests. In the short space of time which has elapsed since the beginning of the present century the nation's timberlands have passed from a condition which invited imminent destruction to one which assures careful and permanent protection through wise use, which will mean a supply of timber for an indefinite period.



The Woodlot Shelters the Farmstead from the Prevailing Winter Winds and Keeps Down the Fuel Bills

Where's That Bulletin?

BY C. O. HENRY, '17

OF what use are a pile of bulletins scattered upon a desk or in a bookcase? In all probability, you have not been able to read them all as they came to hand, and, even if you have, you have not been able to retain all of their lessons. Bulletins are not kept for pleasure or amusement, but for reference. As such, every one of them should be quickly accessible, where you can get hold of it at a moment's notice.

The thing to do with bulletins is to file them as they come in. An easy, inexpensive and effective manner of filing is a modification of *The Lane System*,

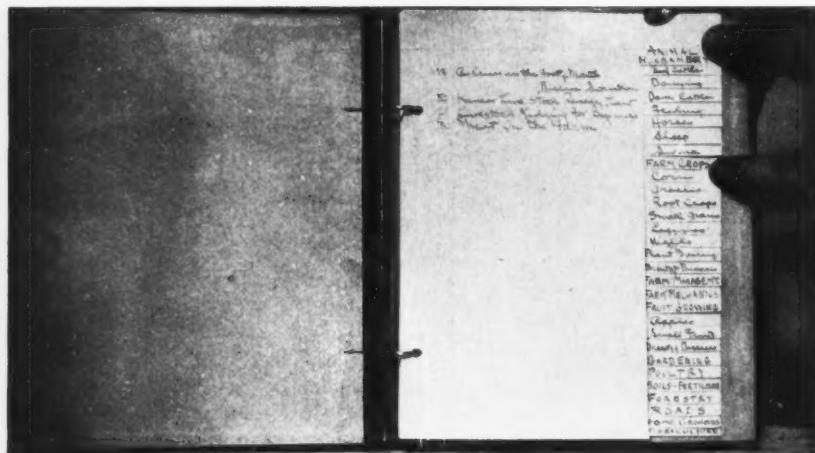
here presented. All it requires is a ten-cent notebook, pen and ink, a pair of scissors and a little time. The result will equal any card index system for practical purposes, and will be less complicated and expensive.

The notebook shown in the illustration is of the loose-leaf type, but any side-opening notebook that has ruled pages and measures about eight by ten inches will do just as well. The first step in preparation is the cutting out of the index flaps. This is done as follows: The right hand edge of the first ruled page is cut out below the first line. (The ANIMAL HUSBANDRY page of

the illustration is the "first ruled page.") The piece of paper thus removed will be about two inches wide and nine inches long. In like manner, the right hand edge of the second page is removed below the second line; of the third below the third line; and so on, the right-hand edges of the succeeding right hand pages being successively removed in such manner that the re-

TIONAL and MISCELLANEOUS. This will make a complete index, sufficiently comprehensive for almost any collection of bulletins. Additional topics may be added, or another set more adapted to the personal interests of the individual may be adopted.

After the flaps are thus labelled, the index is ready for recording the bulletins. Each bulletin is numbered with



Home-Made Bulletin Index

maining flap projects the width of one ruled line below the edge of its immediate predecessor. Left-hand pages are disregarded. When the bottom of the page is reached a start is made at the top line of the next page, a strip being removed similar to that removed from the first page, and the process is re-

On the visible flap of each page is written a topic to which bulletin relates. A suggested order of topics may be had from the illustration. Such general and inclusive subjects as ANIMAL HUSBANDRY are printed in capitals, while the subheads of the subject, Beef Cattle, Dairying, Sheep, etc., are written in small letters, as indicated in the illustration. Succeeding flaps, not shown in the illustration, may be labeled WEATHER, HOME ECONOMICS, EDUCATION.

ink in the upper left-hand corner. The subject is then noted and recorded on its proper page in the index notebook. The method of recording is exemplified on the ANIMAL HUSBANDRY page of the illustration. If the bulletin relates to two subjects, it should be recorded on its two proper pages.

After all the bulletins are thus recorded, they are placed on a shelf in a bookcase in order of number, the smaller numbers on the left. It has been found best to place the bulletins upright on a shelf, divided into partitions by large books or by wooden or wire divisons. It will make it easier to place on the shelf lables indicating the numbers of the bulletins included in each partition.

Which Breed is Best?

It has seemed well worth-while to include in this special Animal Husbandry issue a symposium of the claims of the champions of the principal American dairy breeds. We have been careful to arrange these alphabetically and to maintain strict neutrality.

THE AYRSHIRE COW

BY C. M. WINSLOW

Secretary, Ayrshire Breeders' Association of America

THE marked progress that has been made by the Ayrshire cow in winning public notice and favor within the last few years has been largely due to the efforts of her owners to perfect her in dairy conformation enforced by official records of production. It was always supposed that the Ayrshire was a great milker, but until the establishment of the Advanced Registry system of testing nothing was definitely known of her highest dairy ability. While it is the average of the breed that gives the breed standard and value as a dairy animal, it is the individual record, made under favorable conditions, that show the capabilities of a breed, but both are needed to develop the breed in dairy production. Then too the show ring is valuable in showing the necessity of adhering to the established type of conformation, without sacrificing high production. It is gratifying to notice that in the show

ring the advanced registry cows as a rule carry away the blue ribbons.

It is also of interest to know that in Scotland the tide has turned and today the dairy Ayrshire cow is strongly in the lead. With the changed local sentiment in Scotland calling for a dairy type instead of a show ring type, and the increasing desire in the United States for the highest type of a perfect dairy Ayrshire it will not be long before the Ayrshire will be recognized as the leader of the dairy breeds in the perfect dairy cow. As an illustration of her comparison with other dairy breeds she won the \$500.00 Valentine Trophy offered by Mr. John R. Valentine for the best dairy cow shown at the National Dairy Show, to be competed for until a cow of some one breed shall have won it three times.

The cup was competed for four times, the Guernsey winning it once and the Ayrshire three times, when it became the property of the Ayrshire Breeders' Association.

The following is the dairy side of the Ayrshire cow as shown by the advanced registry work. Each one of these cows and heifers is the World's Ayrshire Champion in her class.

Summary of Advance Registry Work

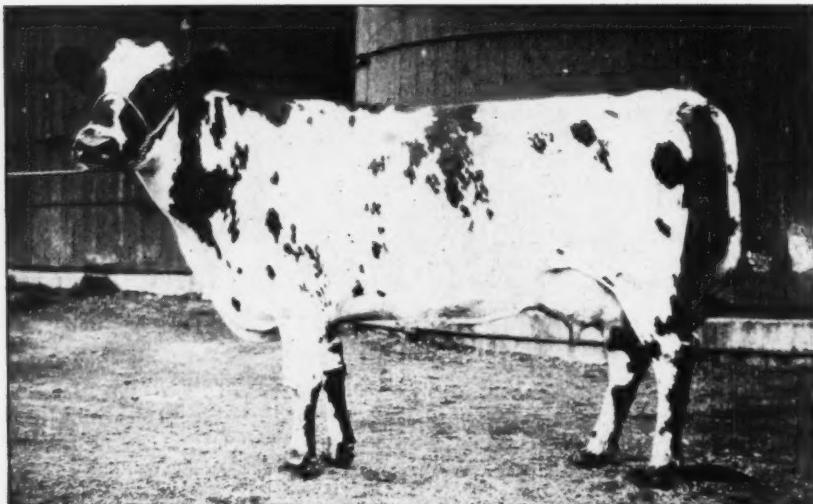
Average yield of milk and butter fat of all cows and heifers that have qualified for advanced registry since its inauguration to October 1, 1916

	Lbs.	Lbs.	Lbs.	%
	Milk	Fat	Butter	Fat
778 Mature cows average -----	11005	421.44	492	3.83
135 Senior 4 year old average -----	10351	400.37	467	3.85
172 Junior 4 year old average -----	9689	387.58	452	4.00
219 Senior 3 year old average -----	9088	369.00	431	4.06

214 Junior 3 year old average -----	8755	344.88	402	3.94
366 Senior 2 year old average -----	8533	341.36	399	4.00
388 Junior 2 year old average -----	7570	312.95	365	4.13
----- 2272 Total cows and heifers average -----	9485	373.93	436	3.94

List of Cows That Are by Official Test the Champions of the Breed for Each of the Several Classes

Class		Lbs. Milk	Lbs. Fat	Lbs. Butter	% Fat
Mature-----	Garclaugh May Mischief -----	25329	894.91	1053	3.53
	Owned by Percival Roberts, Jr.				
Mature-----	Lily of Willowmoor -----	22596	955.56	1124	4.23
	Owned by J. W. Clise				
Senior 4 year	August Lassie -----	17784	720.03	847	4.05
	Owned by L. A. Reymann Estate				
Junior 4 year	Agnes Wallace of Maple Grove-----	17657	821.45	966	4.65
	Owned by M. G. Welch & Son				
Senior 3 year	Jean Armour 3d -----	21938	859.65	1003	3.92
	Owned by W. P. Schanck				
Junior 3 year	Ethel of South Farm -----	15056	589.20	693	3.91
	Owned by John Sherwin				
Senior 2 year	Henderson's Dairy Gem -----	17974	738.32	869	4.11
	Owned by Henderson Ayrshire Farm				
Junior 2 year	Willowmoor Etta 3d -----	16621	666.06	784	4.10
	Owned by J. W. Clise				



ONE OF CORNELL'S AYRSHIRES

Straith Lady Laurie—Record: 8886 lbs. of milk and 372 lbs. of butter fat in a year

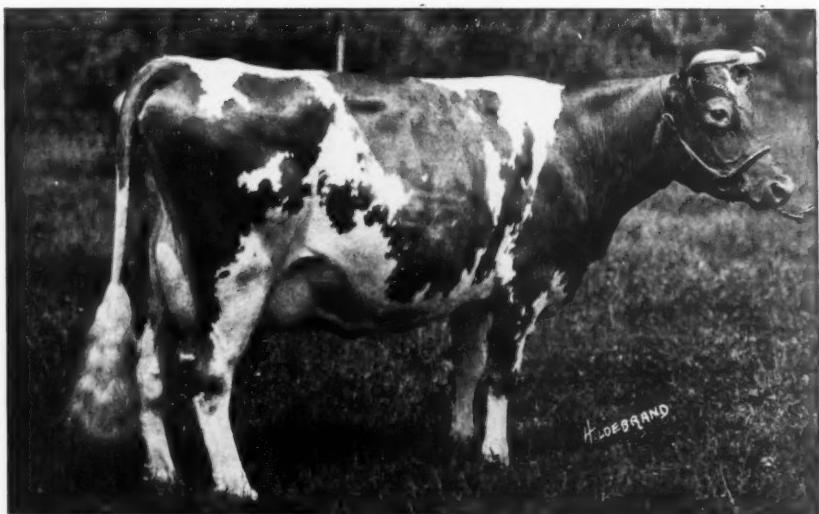
GUERNSEY PROGRESS

BY F. B. HILLS

Secretary, The American Guernsey
Cattle Club

THE Guernsey cow has become famed throughout the world as the most economical producer of butter fat and other products of the

President Emeritus of The American Guernsey Cattle Club, went to the Channel Islands with the object of investigating the two leading breeds there. He brought a small herd of Guernseys to his home in Brookline that year, and also in the following year. After attracting the attention of The Massachusetts Society for Promoting Agriculture,



**LANGWATER DAIRYMAID 26377 A. R. 1460
SOLD AT PUBLIC SALE FOR \$6150.00**

Records: At 2 years of age 11782.9 lbs. milk, 631.5 lbs. butter fat; at 4 years of age 13747.5 lbs. milk, 670.12 lbs. butter fat

Sire—Jethro Bass 11366 A. R. Dam—Imp. Itchen Daisy 3d 15630 A. R. 100

highest natural color, flavor and quality. The phenomenal growth in America of this breed of dairy cattle has taken place largely during the last two decades. Up until that time the breed was jealously guarded on private estates in the vicinity of Philadelphia and Boston.

The first lot of cattle from the Island of Guernsey came to America in 1818 when a gentleman of Germantown, Pennsylvania, imported them for his farm. In 1833 a few others came, as also a few in 1840. In 1872 James M. Codman of Brookline, Massachusetts,

the breed spread into the hands of several well-known Massachusetts farmers.

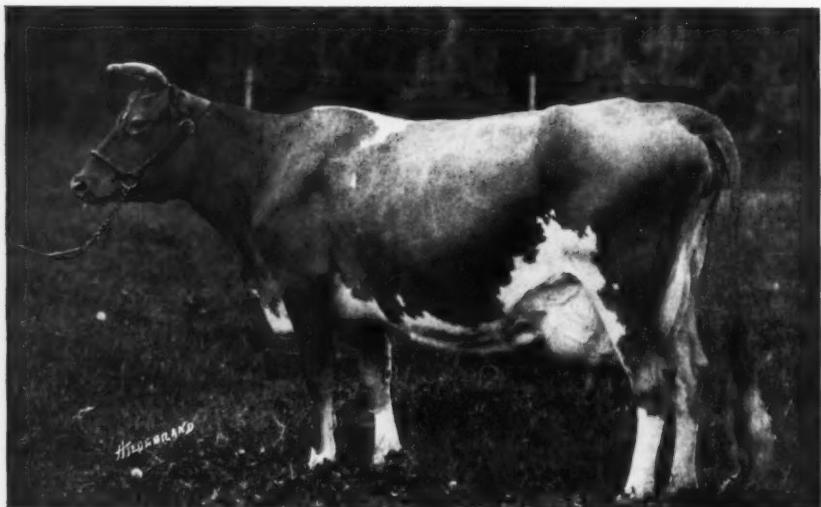
In 1877 The American Guernsey Cattle Club was organized by eleven gentlemen from Pennsylvania, New Jersey, Connecticut and Massachusetts. At the first annual meeting held that year it was found that forty persons had entered in the Herd Register a total of 173 animals, of which 79 were home bred.

The Club was organized to establish a herd book. Since then its activities have multiplied many fold. It was the first club to establish an Advanced Reg-

ister based upon yearly records of production. This was in 1901. Other breed associations have since adopted similar schemes for determining the productive abilities of their animals. In the fifteen years that the Advanced Register has been established the producing qualities of the breed have increased many times. Yeksa Sunbeam 15439 was the first cow of any breed to make an equivalent of 1000 pounds of butter, her record being 14920 pounds of milk and 857.15 pounds of butter fat. She held the world's record for butter production until 1907. In 1914 two Guernsey cows again broke the world's

ord of production in the Guernsey breed.

Up to the present time Advanced Register certificates have been issued for about 5500 cows of all ages. These 5500 records average approximately 8875 pounds of milk and 442 pounds of butter fat equivalent to 550 pounds of butter. This includes heifers of all ages and about 1550 mature cows. The 1550 mature cows have records averaging about 10200 pounds of milk and 501 pounds of butter fat equivalent to about 635 pounds of butter. The ten cows of the breed having the highest records average 19299.55 pounds of



LANGWATER HOPE 27946 A. R. 1978

Sire—Imp. King of the May 9001 A. R. Dam—Imp. Itchen Lily 5th 23540 A. R.

**Records: At 2½ years of age 15078.8 lbs. milk, 773.59 lbs. butter fat;
at 6 years of age 19882.0 lbs. milk, 1003.17 lbs. butter fat.**

record, one, May Rilma 22761, produced 19673.0 pounds of milk and 1073.41 pounds of butter fat and Murne Cowan 19597, the other, produced 24008.0 pounds of milk and 1098.18 pounds of butter fat. The latter was the world's record until 1915 when it was surpassed by a cow of another breed. Murne Cowan 19597 still holds the highest rec-

milk and 974.03 pounds of butter fat, equivalent to about 1225 pounds of butter. Seven cows have records averaging over 1000 pounds of butter fat and nearly 20000 pounds milk. The average test for Guernsey cow produces quality with quantity. In every official dairy breed test in which all dairy breeds have been represented, Guernseys have won

as the most economical producers of butter fat and butter.

During the last five years the registration of animals has increased over 135 per cent, which is an indication of the tremendous rate at which the breed is growing. Over 100,000 animals have been registered in the Herd Books to date. While the greatest number of animals of the breed are to be found in the East and North of the United States, they are now rapidly spreading into the West and South.

From the commercial point of view the breed is a very profitable one. In a recent sale in Massachusetts seventy-five head of animals of all ages sold for a total of \$80,650, an average of \$1075 per head. Fifty-nine of the seventy-five were bred on the farm at which the sale took place, and averaged a price of \$1160. Sixteen daughters of one bull averaged \$1968. The forty-one females bred on the farm averaged \$1421. One cow sold for \$6150, the record price for any female of the breed. The herd from which the stock was sold has been built up by some of the finest constructive breeding that has been done in America. Thus for foundation stock and for improving other herds the animals were well worth the prices that they brought.

Guernsey bulls have the ability to stamp the characteristics of the breed on their progeny and are therefore especially valuable for the up-building of grade herds. While there is no *best* breed of dairy cattle, every breed has some characteristics which make it outstanding for special purposes. The fact that the Guernsey cow is the most economical producer of butter fat and products of the highest natural color and flavor, makes the breed especially popular for the highest class of trade in any dairy products.

No breed organization should be interested selfishly in its own development alone, for all breeds of animals have a larger function to perform. That of the dairy breeds is the improvement

of the dairy industry as a whole and the production of a better grade of dairy products and more profit in dairy farming. In this great work the Guernsey stands shoulder to shoulder with the other breeds and performs yeoman service.

THE AGGRESSIVE HOLSTEIN-FRIESIAN

BY H. A. HOPPER

Professor of Animal Husbandry at
Cornell University

IN PRESUMING to discuss briefly certain outstanding economic features of the Holstein-Friesian breed of cattle I do not wish to be misunderstood. Measured in terms of definite achievement, the breeders of dairy cattle as a whole have done marvelous things. Their results have quickened interests in the improvement of other stock in such a manner that it may be definite and measurable. While the effort to secure higher production in all the dairy breeds has been the common aim, and the process of selection has been much alike in each case, the inherent characteristics of the breeds have been dissimilar. What I may say therefore concerning the Holstein-Friesian is in the spirit of charity toward all and malice toward none.

The conspicuous position held by Holstein-Friesians in America is an open book. They hold the majority of the high records. Within the past ten years high records of production have been broken so uniformly and frequently by Holstein cows that officials have hesitated to report these records as such for fear they would again be exceeded before the ink was dry.

Until recently it seemed impossible for a cow to produce 1000 pounds of milk in a week. A Holstein has done it. In the same manner it seemed unthinkable that a cow could produce 1500 pounds of butter in a year. A Holstein has done this also.

When the writer was privileged to do some official testing in 1901 as an undergraduate, the high records soared around 26 pounds of butter per week. I do not recall that any except Holstein breeders talked much about 30 pounds per week and I doubt if any dreamed of 40 pounds per week. It is now generally known that two Holsteins have 7-day records of 44 pounds of butter, and one of these cows is only 4 years old. One Holstein-Friesian cow has produced in one year 31,000 pounds or 15½ tons of milk. Of 583 cows in the world that have produced 24 pounds of fat in seven days 578 are Holsteins. These figures too may stand correction by the time these lines appear.

An Aggressive Breed

The man who is ever ready to deal with new and untried situations in a cool and level-headed fashion is usually the fellow who succeeds. The Holstein cow has many of the qualities of a pioneer. Some ten years ago I was much surprised at the rapidity with which black and white dairy cattle came to take possession of the new and remote dairy sections of western states. In many places the Holstein cow paved the way for a creamery and when the time came to talk sires for herd improvement, the reference was usually to a registered Holstein. At that time the expansion of the dairy business in the Mississippi Valley and westward, encouraged the erection of milk condensaries at many points and the extension agents of those concerns encouraged the breeding of the black and white cow. Some capacity for adaptation, some subtle factor of efficiency has for nearly two generations wrought tirelessly to establish this breed firmly in the dairymen's confidence. The Holstein cow has been a wonderfully patient teacher to thousands of dairymen, of the fundamental truths of the business of milk production and in spite of abuse and much misrepresentation she probably holds a clear title to suprem-

acy in persistent and economical production.

To analyze further her commanding qualities we can well consider the factors of fecundity and capacity. I am impressed with the fact that no breed can make headway in securing and holding confidence that is not prolific. A group of breeding stock from any breed that is able to maintain its numbers only with difficulty has a poor chance to survive. The Holstein has pushed her way into new territory because the calf was strong, active, and soon able to rustle for itself against fair odds.

The capacity to consume and to produce generously marks the goal of dairy breeding. In an industrial sense capacity or efficiency is everything. Science and industry are constantly searching for the agent that will work over the bulky or coarse materials as the case may be into finer products. The bulky end of the ration, the coarse farm grown roughage gives the Holstein with large digestive storage, a tremendous economical advantage. As time goes on, if present tendencies serve as a criterion, more and more of the cereals and grains will be used directly without animal intervention for human food. We shall be compelled to use more and more the cheap though nutritious roughages in feeding domestic animals. The future effectiveness of the Holstein in this respect, is a foregone conclusion, and dairymen are thinking very seriously in terms of this factor.

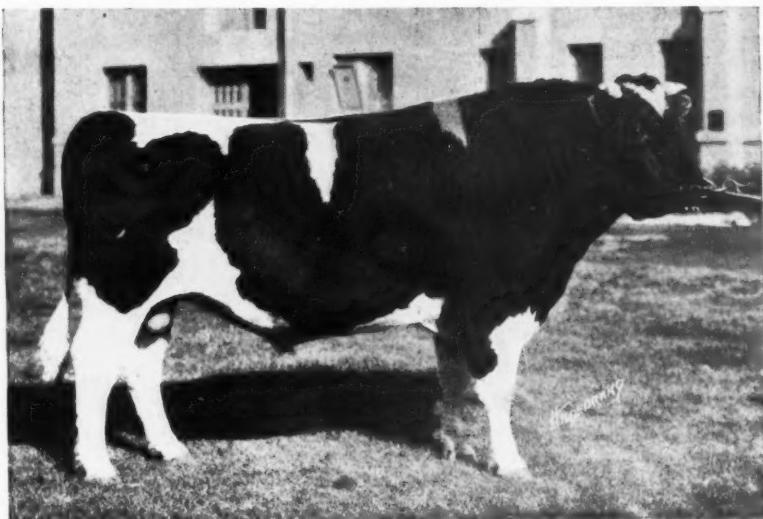
Quality of Product

Never before has so much attention been given to the nutritive value of milk as it is receiving at the present time. It is a splendid sign to hear the average consumer discussing this question. Holstein milk has been the butt of ridicule longer than most of us can remember, because the large amounts produced carry in generally only a moderate percentage of butter fat. For a long time, the butter fat content of milk was generally accepted as the true index

of its nutritive value. This is no longer true. The sanitary quality of milk and the vital properties of solids other than fat may conceivably force the fat content in rank of importance to third place.

Uniformity of Type Lacking

The tremendous productiveness and popularity of the Holstein cow has in a measure reacted against the establishment of a uniform type. Men have capitalized her records and blood to pay



OAK DE KOL HOMESTEAD

First prize senior and grandchampion male at National Dairy Show, 1916

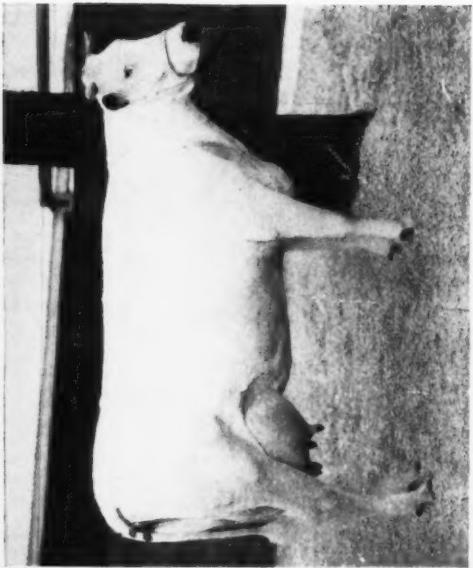
There is another consideration—the market. Present prices in the New York district for $3\frac{1}{2}\%$ milk amount to 68 cents per pound for the butter fat in 100 pounds. The extra pound of butter fat carried in 4% milk brings only 30 cents. The writer is not yet convinced that the consumer is ready to pay a premium for milk with a high fat content, and the scale of prices tend to reflect this attitude. However, this comment is not intended to favor the production of milk low in butter fat content. To perpetuate strains of low testing Holsteins would be a calamity indeed. With care in selection and feeding many herds are crowding an average of 4% butter fat which apparently meets all the essentials of an attractive market milk.

mortgages and educate families and in their zeal to establish themselves have forgotten that their breeding operations should include an effort to arrive at a uniform type. While this is a criticism of the breed it is also a compliment.

Holstein-Friesian interests are deeply indebted to the constructive breeding operations and teachings of that pioneer breeder and dean of Holstein breeders—Mr. E. A. Powell. He was the first to urge the necessity of authentication of records by a third disinterested party and the great need to strive for a definite and pleasing type. He has attained a noteworthy distinction on this latter point as witnessed by the Lakeside Model family. In a recent paper entitled "Individuality," he has this to say:



FIRST PRIZE EXHIBITORS HERD—NATIONAL DAIRY SHOW, 1916



ORMSBY JANE SEGIS AAGIE

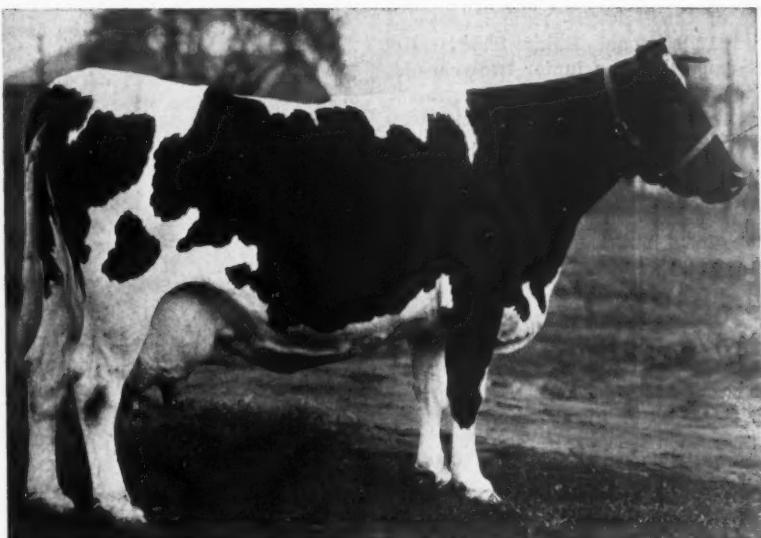


DUCHESS SKYLARK ORMSBY
1506.36 lbs. butter in a year

"As breeders of Holsteins, we should maintain the laurels which we now hold. This position has been attained by encouraging and developing the great natural superiority of the breed as producers, by better care, bet-

attain that high degree of perfection which we all wish to see, which is possible and which is within our reach."

Every year's work in breeding tends to confirm the fact that performance and type may be correlated. A his-



PAULA OF CHAGRIN FALLS 3rd, 114006

First prize official record cow and second prize cow in the open class at the National Dairy Show, 1916

ter environment, more skilled management.

The enormous records which have been made have done wonders toward popularizing the breed and creating a demand. These records should be encouraged and will probably be increased. The end is not yet. The future depends more upon the man behind the cow than upon the cow herself.

The efforts of breeders have generally been directed toward the accomplishment of one purpose—the making of phenomenal records—regardless of the development and improvement in other essential qualities, which must receive attention before our favorite breed will

torical reference to the animals winning distinction in the 1916 shows and tests bears this out.

Duchess Skylark Ormsby, the world's champion butter producer for a year with 1506 pounds to her credit, is a cow of especially good type, and the outline of her figure is being preserved as a model. Ormsby Jane Segis Aaggie, the most brilliant star in the milky way, is the possessor of all the world's records up to 100 days. She is a heifer of splendid dairy conformation and is held in high esteem by critical judges.

That a cow may win distinction in more than one direction was shown at the recent National Dairy Show. Paula of Chagrin Falls 3d was first prize of-

ficial record cow and 2d prize cow in the open class. A study of her type and dairy points confirms her right to this honor. Holstein breeders may well encourage that sort of competition.

Males are not to be overlooked in this connection. Oak De Kol Ollie Homestead was the grand champion male of the Holstein-Friesian breed at the 1916 National Dairy Show. His first daughter, as a junior two-year-old, made 505.54 pounds of fat, equivalent to over 600 pounds of commercial butter in 300 days and carried a calf 206 days of that period. Here is a striking combination of individuality and high production which simply emphasizes some of the undreamed of possibilities of the breed previously referred to. The pinnacle of distinction for the breed rests in the hands of those breeders who are willing to combine harmoniously the factors of type and performance. Exhibitors' herds indicate that a splendid type exists within the breed and popular interests in these cattle should see to it that this be definitely fixed.



We wish to take this opportunity of thanking the Holstein-Friesian World for their courtesy in furnishing us with illustrations for this article. In return for this kindness we are extending to them the privilege of being the first to reprint the article.—Ed.



THE JERSEY COW

BY T. A. BAKER

Instructor in Animal Husbandry at Cornell University

THE blood of the Jersey cow has been kept pure for many years.

The native home of the Jersey is upon the Island of Jersey in the English Channel. The farmers of this island have always taken great pride in the development of this breed and they have passed stringent laws to prevent the importation of any animals from outside sources. The result has been that a breed of cattle very uniform in type and with well defined characteristics has been developed.

The Jersey cow is the smallest of the major dairy breeds and she is extremely fine boned and angular in conformation. Because of these characteristics she has often been spoken of as being deficient in constitutional vigor, but there is no foundation for such an assertion. The head is broad and short, the face being lean and distinctly dished between the eyes. The eyes are far apart and unusually prominent. In addition to being fine of bone the Jersey is very symmetrical in her general conformations. To many this combination of characters makes the Jersey the most refined and beautiful in appearance of all dairy breeds, and many fanciers have a partiality to the breed on this account.

Jersey cattle have been bred in America for about fifty years. The breeders in the United States and Canada have generally favored a larger type of animal than that bred on the Island of Jersey. The sentiment of the early breeders is well expressed in the following statement from the introduction to Volume I of the Herd Register of the American Jersey Cattle Club:

"The sole office of the Jersey cow is to produce the largest possible amount of rich and highly colored cream from a given amount of food. Everything else in connection with the breeding of the

race is, or should be, incidental. Beauty of form and beauty of color are, of course, desirable, but no wise breeder will give these features more than secondary importance."

Because of this preference the animals

popularity increased to such an extent that descendants of the original stock may now be found in all parts of the United States. The animals of this family are strictly of the American type and a large percentage of the high pro-



SAYDA'S MERIDALE GLADYS

A promising young Jersey at the Cornell farms

bred in this country are larger and more vigorous than those bred on the Island. The difference is so distinct between imported animals and their near descendants, and those descended from early importations that it is customary to recognize two types, the American and Island type. It is a significant fact that the American bred animals hold most of the best milk and butter records at present. For the fancier who desires an animal of beauty and refinement, the Island type Jersey is *par excellence*, but for the practical dairyman the American type will in all probability prove to be the most profitable producer.

One of the foremost families of Jerseys in this country is the St. Lambert. This family originated in Canada but its

ducing cows at the present time carry this blood.

Many imported animals have gained renown in this country. Most of these have carried the blood of Golden Las, who was justly considered the greatest bull the Island has ever produced. The bull, Noble of Oaklands, is the most famous individual that has been imported in recent years. He was purchased by the Elmendorf Farm of Lexington, Kentucky, for \$15,000. The sons and daughters of this bull have probably won more prizes in the show ring than the progeny of any other animal of the breed in this country.

The Jersey cow has held a position of sustained popularity in this country ever since the first importations. It is true

that the position has been challenged and is constantly being challenged by animals of the other leading dairy breeds, but in the production of milk, rich in fat, she still maintains a position of importance. There are several animals of other breeds that have records which exceed that of the highest Jersey. These cases are few, however, and it is an unquestionable fact that the best Jersey cows are close contenders with the best cows of any other breed in butter fat production.

The four highest Jersey records for yearly production of milk and butter are as follows:

	Lbs. Milk	Lbs. Fat
Sophie 19th of Hood F'm	17557	999
Spermfield Owl's Eva	16457	993
Eminent's Bess	18783	962
Jacoba Irene	17253	952

There is one important characteristic in which the Jersey has a distinct advantage over the other major dairy breeds and that is in her ability to maintain her living and a moderate production on rough pasture lands. Her small size and close grazing habit make it possible for her to graze semi-barren hillsides which would be almost inaccessible to the larger breed types. This advantage of the Jersey is fully appreciated by the farmers in south eastern New York. In passing through these sections no other breed will be seen. Her grazing ability is her greatest asset in this country and this advantage combined with her ability to produce a milk rich in fat is certain to insure her a permanent place in American agriculture.

THE FUTURE OF THE MILKING SHORTHORN

BY W. ARTHUR SIMPSON

Secretary New England Shorthorn Breeders' Association

MILKING SHORTHORNS have existed in this country in a small way since the first introduction of the breed into America nearly 100 years ago. A large number of the earlier importations of the breed were of cattle with marked dairy ability, but with the opening of the vast areas of cheap land in this country and the development of the meat industry on a gigantic scale the Shorthorn received more attention as a pure beef animal and, save in a comparatively few cases, the beef merit of the breed was developed to the exclusion of the milking ability. There has been a vast change in agricultural conditions the past few years and the demand for a dual-type cow has grown as a result of these changes. The vast free land in the West has been broken up into small farms and not only in the corn belt but all over the western section of our country land has enormously increased in value. At the same time meat and milk have come to command larger and larger prices, grain has doubled in value and lands devoted exclusively to grain growing have decreased in relative yields. Livestock will have to be kept to restore and maintain the fertility of this land. High priced lands have become so valuable that the pure beef cow, raising only a calf, can no longer be profitably kept in a commercial way. There has come a demand for the type of cow that will give a reasonable flow of milk, enough to pay her cost to keep and a little more, while her progeny is growing into profitable beef on skim milk and farm raised adjuncts. In the great grain raising area of the North-west where changing conditions have made the keeping of live stock necessary, the demand is for this type



of animal. Many eastern farmers, also, confronted with the problem of high priced help, are attracted by a proposition that can be managed more on a one-man basis, and yet keep up the necessary amount of livestock on the farm. Such a farmer can milk 10 or 12 cows and keep the balance in heifers and steers, and this system enables him to care for his entire herd himself.

The Milking Shorthorn, properly bred and handled, is ably fitted to make good under these new agricultural conditions. For 150 years she has existed in England and made good as a milk and beef producer. In this country they have

made good under the conditions demanded of them and they have, in spite of the great opposition they have encountered, grown stronger and stronger each year. There is nothing unstable about the present "boom" in Milking Shorthorns. Their demand is firmly fixed and likely to endure for years. They have commanded prices at public and private sales the past year that compare favorably with prices realized for other breeds.

We are confident that in the great new, yet old, field that is being entered upon by the Milking Shorthorn, she will not be found wanting.



MILKING SHORTHORN OF THE UNIVERSITY HERD

Lady Clay III. Record: 11,912 lbs. of milk and 483 lbs. of butter fat in a year

"The profit which may be realized from any given animal depends directly upon the capacity of that animal to utilize food above that required for maintenance."

Professor E. S. Savage, in
Animal Husbandry 1

HOME ECONOMICS

Home Economics in Print

BY HELEN CANON

Editor Home Economics at Cornell University

THE woman's page in the daily or weekly newspaper is the butt of many a joke, and often deservedly so. As there are yellow journals so there are pages of insipid pink hue termed the "woman's page" and containing a few notes on the use of cosmetics, a hint about fashionable footwear, and simple directions for making chafing-dish dainties. Fortunately, however, there are editors with vision who see the possibilities of a woman's page and are trying to publish material worth reading. A certain demand for dilute subject matter evidently exists, since publishing it has paid; but if newspapers are to fulfill the function of educational agents, as is claimed for them, the subject matter offered must be something other than the froth that too commonly envelopes a more or less questionable fact. To the horror of a woman who has spent years in furthering the Home Economics movement, a noted journalist confessed to having received his idea of the scope of home economics from the woman's page in a certain daily.

To be worthy of a place in a good newspaper, a woman's page should be edited by a specialist, just as the finance page requires the work of a specialist. Persons who are spending their time in a well-directed study of some of the many problems connected with home making have material that is of real value to the home maker. But when editors try to employ a person who has had training in home economics and who also has ability to write, their most diligent efforts are likely to be unavailing. They can find women with technical training in household affairs but with no

power of presenting their subject matter in correct, precise, simple English and with a certain style that gains the attention of the public. With editors crying for writers and young women crying for positions, is it not advisable for the undergraduate who may be interested in writing, to elect as many courses as possible in English and in journalism? She will find that studying English with the definite purpose of using it in making her living is far more fascinating than studying it with the vague purpose of acquiring culture.

The woman's page is often through necessity made up by persons who are clever at presenting material in such a way as to attract readers, but who are unqualified for making authoritative and trustworthy statements. Much that is misleading is given to the public, and, because of the halo that surrounds the printed word, is accepted as the truth. A woman read somewhere that layer cakes are very indigestible, and since that day she has conscientiously made loaf cakes. Women who are studying home economics with a serious purpose, who are not mere dilettantes, are accumulating information that progressive home makers desire. They are conscious of their responsibility for accuracy and consequently are reticent to write just because writing is good. The pleasure of making money and of seeing their names in print fades somewhat before a really fine motive to better home conditions. These are the very women, however, who should feel their responsibility to give through print, to a larger group than is otherwise possible, the

(Continued on page 228)

Sidelights on Springfield

BY H. H. WING

Professor of Animal Husbandry at Cornell University

THE National Dairy Show was organized about ten years ago to bring together in a large way an exhibition of dairy machinery, dairy products and dairy cattle so as to show the progress of the whole nation in each of these three lines. With the exception of one year preceding the present, when it was held at Milwaukee, the Show has always been held in Chicago, earlier at the Coliseum but latterly at the Livestock Pavilion at the Union Stock Yards. From the first the Show has maintained its national character so far as drawing exhibits in all lines largely from all the dairy producing regions and it has also been of such a character with respect to the number and quality of exhibits as to command national attention. The attendance, however, has never been large nor has it drawn its attendance largely from those actually engaged in dairy production and to this extent it may be said to have failed to accomplish its chief mission. The managers decided on a distinct innovation for the Show of 1916 and it was held at Springfield, Mass. Geographically considered, Springfield is, of course, far from the center of the nation but the farming people surrounding it have little or no livestock interests outside those directly connected with dairy production. In the number and quality of exhibits, the recent show was the equal or superior of any preceding, demonstrating that in the removal, the Show lost nothing of its national character. It did draw an attendance far surpassing that of any preceding show, thus—so far as educational features are concerned—reaching a much larger constituency than ever before.

For an exhibition of the size and scope of the National Dairy Show, there are distinct advantages in a per-

manent location, the chief of which are, of course, adequate housing facilities but the experience at Springfield would seem to indicate that if suitable accommodations can be obtained, it should be possible to keep up the national character of the Show and at the same time, from year to year make it possible to reach a very much larger number of people than it would be possible to do if any central point should be selected for a permanent location—no matter what other advantages such a location might present.

The National Dairy Show at Springfield was held on the grounds of the Eastern States Exhibition—an organization that has erected permanent buildings for exhibition purposes. The buildings are new, ample and in the main admirably suited for the purpose intended. The Livestock Arena with its amphitheatre form, (seating about 5000 people), is said to have a greater capacity than any similar enclosed arena in the United States. On the days when the cattle judging took place, this amphitheatre was filled to capacity with interested spectators of the judging, a thing unknown in the history of similar exhibitions in this country.

The main exhibition hall devoted to machinery was filled with dairy manufacturing appliances of all kinds, many of the installations being especially extensive and attractive, none probably more so than that of the DeLaval Separator Company. The exhibit of dairy products has never been large at the National Dairy Show but is usually strong, particularly in the exhibit of market milk which is judged and scored by analysis of the bacterial content and does not lend itself particularly to exhibition purposes. The competition, however, was as strong as usual.

As an exhibition feature, the interest in the National Dairy Show naturally centers on the dairy cattle, not only because the cow is the foundation of all dairying but because livestock always forms a particularly attractive feature in any exhibition and competition. Coming as it does, after the leading state and provincial fairs, and exhibitions, the National Dairy Show attracts to it the chief exhibition herds of the whole country. This last show was no exception to the rule, there being about one thousand head of cattle representing the five leading dairy breeds, namely—Jersey, Guernsey, Holstein-Friesian, Ayrshire and Brown Swiss. A distinct addition to the National Dairy Show would be the inclusion of milking Short Horns and Red Polls, but these have never been classified as dairy breeds by the National Dairy Show Association.

If one were to depend upon the accounts of the Show as they appear in the agricultural and dairy press where glowing tributes are paid to the quality of the animals shown, it might be inferred that at the National Dairy Show only animals of the very highest quality of their type or breed were to be seen and that these included practically all the animals in the country worth mentioning. Two things should be borne in mind by the careful student of animal types at any large show or exhibition. The inference is, of course, strong that the individual having won a championship at the National Dairy Show must—for that reason—be considered the best individual of its type or class. Assuming that the judgment has been correctly placed, this inference is correct—so far as the animals appearing in public competition are concerned. But it must be remembered that only a comparatively few owners are represented in any large fair or show and that there are undoubtedly many individuals the equal or superior of those shown who never journey outside their own stables or leave their own farms. To say that because an animal that has been cham-

pion at the National Dairy Show, it is the best individual of its kind in the country is very much like saying that Woodrow Wilson or Charles E. Hughes are the only men in the United States capable of occupying the office of President. This is said—not to detract from the glory of having won a championship at such a show because this achievement is a notable one but to warn the novice or the over-enthusiastic showman that a public competition does not necessarily bring out all the most desirable animals and that there are undoubtedly "as good fish in the sea as ever were caught."

Then, too, not all the individuals shown are of surpassing merit or of even average quality. I have never visited a large show in which it was not difficult to discover many animals of mediocre merit, and actually inferior specimens are by no means rare. One reason for this is that few exhibitors can fill all classes with excellent individuals and many recognized by their owners as common or mediocre specimens are taken along merely to fill in the gaps.

Bearing these two things in mind, the animals at any show of the scope and character of the National Dairy Show may be said to truly represent the most desirable type of the breed as it exists in the minds of breeders and exhibitors at the present time.

The National Dairy Show during its whole experience has maintained a high standard for the carefulness with which the awards are made and coming as it does at the close of a long series of fairs, the judgments at the National Dairy Show have done very much to unify the types of the different breeds and this was particularly true of the recent Show. Probably no more careful judging of dairy cattle has been done in recent years than was done at Springfield, and the verdicts of the judges have been accepted with less criticism on the part of the public and in the livestock press than is usual.



Courtesy Black & White Record

JUDGING AGED BULLS AT THE NATIONAL DAIRY SHOW 1916

Paul Calamo Korndyke stands in the foreground. **Oak De Kol Ollie Homestead**, the Grand Champion, is standing in fourth position

The Judging Team at the Big Show

BY D. U. DUNHAM, '17

LAST SPRING, soon after Easter vacation, a class in Advanced Judging was started and held every Saturday during the remainder of the term. During this period the class was taken upon several trips to see some of the best herds in the state. About fifteen men tried out for the team by doing this early judging and taking these trips. Professor H. H. Wing coached the team.

This fall the competitors judged cattle at the New York State Fair at Syracuse. Ten men reported. This number was cut to six, and these six reported at the College on Friday, October 6. On the following Tuesday night the team was selected. W. B. Eastman, '17, R.

B. Markham, '17, and myself were selected to represent Cornell in the Students' Judging Contest at the National Dairy Show, held in Springfield, October 12-21.

We left Ithaca Wednesday morning and stopped over at Syracuse to see some excellent dairy cattle and gain valuable experience in this line, and arrived at Springfield a little after six o'clock the following evening.

The next day was Friday, the thirteenth, and it was on this day that we had to judge. Due to an unavoidable delay, we were held for over three hours waiting to commence. We were not allowed to see anything, even exhibits, before going into the ring. Judg-

ing started at noon and lasted until after seven. It was a good afternoon's work.

Each of us judged eight rings of animals, a ring of mature cows and another of mature bulls of each of the four principal dairy breeds—Guernseys, Ayrshires, Jerseys and Holsteins. We were given fifteen minutes to place each ring of four animals and fifteen minutes to write our reasons for so placing each ring.

The contest was open to all agricultural colleges giving four-year courses. This year eighteen teams, representing most of the colleges of the East and Middle West, participated. The contestants were divided into four groups, each group judging one ring of animals at a time. No two men from any one college were placed in any one group and no communication between men was allowed. The coaches of each team acting as judges placed each ring as soon as the students had finished and afterward rated the written reasons.

The ratings of the teams are determined on a point basis, 100 points being allowed for correct placing of each ring and another 100 for correct reasons for the placing, this making a possible 200 points per ring per man. The eight rings multiply this to 1600 possible points per man, and a possible total of 4800 points for a three-man team.

Out of this possible 4800 points, the University of Nebraska showed the highest score of 3672.25. The Massachusetts Agricultural College was second with a score of 3617.35, and the University of Missouri third with a total of 3589.55. Our team was in eleventh place, as regards total score, but placed third in judging Guernseys. W. B. Eastman, '17, of the team took second place in individual judging of Guernseys.

Of the 1600 points possible for an individual, H. H. Haines of Rhode Island, annexed 1263.40, the highest number. W. L. Henderson of Iowa was second

with 1260.40 and F. W. Fitch of New Hampshire third with 1253.55. Four scholarships, each worth \$400, seven silver cups, and five gold medals were awarded to the teams and individuals making the highest scores.

The next day, Saturday, we saw the show itself. The largest and most interesting building, to me, was the Coliseum, three hundred feet long by two hundred wide, with a ring two hundred by a hundred feet, and seating capacity around the ring for 5,600 people. While we were judging, an animal show was going on in the farther side of this ring and fully 8,000 people looked on.

The cattle barns have a capacity of 1,000 cattle. Another building contained exhibits of various kinds of machinery used in the manufacture of milk products and still another, of considerable size, contained exhibits of the Boys' and Girls' Clubs of Massachusetts. Besides this, nearly all of the New England States had their separate exhibits, some of them in tents, owing to the lack of room inside. On Friday, October 13, between twenty-five and thirty thousand boys and girls, members of the state clubs, saw the show.

The most prominent feature of the show was, of course, the cattle, and it was the cattle that most people came to see. Between fifteen and fifty thousand people were on the grounds each day of the show, and the cattle barns were always full of ardent admirers of the various breeds. Most of the cattle were excellent individuals, representing the very highest development of their type. Representatives of six breeds were on show. Of the four principal breeds, the Jerseys were strongest in numbers, followed in order by the Guernseys, Ayrshires and Holsteins. The showing of Holsteins was rather meager. Of the minor breeds, a good number of Brown Swiss were shown, and there were nine head of Dexter Kerry cattle.

The New Marking System

BY CORNELIUS BETTEN

Secretary, New York State College of Agriculture at Cornell University

THE grading system adopted by the faculty last April goes into effect with the present term and it is essential that we all understand its details and appreciate the purpose of the change.

Five passing grades have been established and they are defined in terms of the frequency with which they may occur when large numbers are dealt with. It is understood that the frequency of the passing grades admits of enough variation so that no percentage needs to be indicated for the failures.

A. The highest grade, to be assigned in the long run to about five per cent of the cases.

B. A grade which in the long run is assigned to about twenty per cent of the cases.

C. A grade which in the long run is to be assigned to about fifty per cent of the cases.

D. A grade which in the long run is to be assigned to about twenty per cent of the cases.

P. A grade which in the long run is to be assigned to about five per cent of the cases.

(The symbol E would have been used here except for confusion with E as used in the college of Arts and Sciences where it is not a passing grade. To be sure the other symbols are also not equivalent in meaning but no practical difficulties arise as would result from having on the same student's record E as a passing grade and E as a condition.)

F. Failure.

While the present article is contributed for information and not as argument, reference may be made to what is perhaps the most common and insistent of objections, namely, that such a scheme cannot be applied to the smaller advanced classes which are presumably

groups somewhat select as to interest in the subject if not as to ability. The reply to this is that advanced classes should really be advanced and that when this is true there will be the same natural range of achievement even in a selected group. Of course a single small class might truly merit an average grade of A but the record of a series of classes in the course ought to show the normal distribution of grades.

It should be noted that the adoption of this system is not a simple substitution of letters for figures as symbols. The essential feature of the plan is that it attempts to standardize roughly the grades given by all members of the faculty, a result not aimed at either by the numerical system or by the letter system as commonly used. Under our present numerical system two instructors may each have a firmly fixed notion that he can distinguish between grades 70 and 75 while at the same time the 75 of the one may be equivalent to the 90 of the other with consequent injustice to the student. Under the new system each man's best students will receive the grade A whether he has been accustomed heretofore to give them 98 or 80. The grades assigned will thus come to represent a student's standing in comparison with his fellows rather than his percentage of approach to perfection in courses of varying difficulty as judged by various instructors.

The faculty has provided that a statement showing the distribution of grades given by each member of the staff be presented to the faculty periodically so that while it will still be possible for anyone to grade habitually high or low, he must do so in the courage of his convictions and of course there will be opportunity for him to explain unusual conditions.

The non-passing grades are defined thus:

Inc. Incomplete. A grade to be assigned when the work of the term has not been completed but is of such amount and character that in the judgment of the instructor the completion of the remainder might entitle the student to credit for the course. An incomplete automatically becomes a failure after the period of a year.

W. A grade to be assigned when the work is discontinued under official excuse and in the opinion of the instructor is not of sufficient amount to merit the grade of incomplete. When a course is dropped without official excuse the grade F should be assigned.

It will be noted that conditions are no longer given, the faculty having ruled that "re-examination for the purpose of changing a grade shall not be permitted." Students should also particularly consider the definition of the grade W; it provides that a student is responsible for every course for which he is registered and courses dropped are recorded as failures unless the department receives official notice from the secretary's office showing that leave of absence or cancellation of courses has been granted.

Another change with respect to examinations is to the effect that "exemptions shall not be given to a portion of a class." Together with the new grades there has been adopted a system of graduated credits stated thus:

Students receiving the grade of C shall receive normal credit toward graduation; grade of B, ten per cent additional credit; grade of A, twenty per cent additional credit; grade of D, credit reduced ten per cent; grade of P, credit reduced twenty per cent; grade of F, no credit.

The purpose of this regulation is to encourage thorough work in fewer courses and to penalize and eliminate the student who slips along with poor work throughout. It makes it possible

for a very good student to complete one hundred and twenty hours in less than eight terms but the faculty has ruled that in order to be graduated in less than eight terms he must show an average of at least fifteen per cent excess credit in subjects taken in the College of Agriculture; that is, he would have to average considerably better than B.

The adoption of these rules has necessitated changes also in those regarding delinquent students which are restated thus:

1. A student who in any one term does not pass at least ten hours of work with a grade higher than P may be dropped by the faculty for the period of one term.

2. A student may be dropped by vote of the faculty for the period of one term if he has an accumulation of ten hours of failure and decreased credit, except that after the records are complete for six terms of work, twelve hours of accumulated deficiency shall be necessary. For the purposes of this rule, incompletes and withdrawals are not counted, nor shall the rule be applied until the student has had one term of work unless he enters with advanced standing. A student so dropped may have one retrial after the lapse of a term, but if he accumulates six hours of failure or decreased credit in the courses in which he has been registered after his readmission, he shall be finally dropped from the college.

All of the rules here referred to apply to all students except that the system of graduated credit does not affect the members of the present senior, junior, and sophomore classes.

The faculty has adopted this legislation after full deliberation and with little dissent except that based on a reluctance to add further variety to the grading systems in vogue in the colleges of the university. It is hoped that the plan may likewise appeal to the judgment of the students in whose interests it is avowedly adopted.

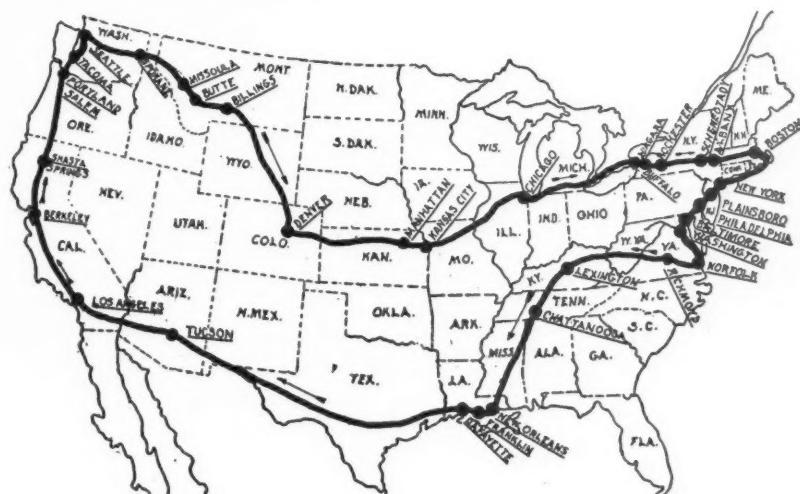
A Traveling School of American Civilization

BY RUSSELL LORD, '18

THREE times in as many years the prize winners of the High School Agricultural Clubs of California have crossed the northern part of this State, stopped at the principal cities and divided their sight-seeing between the towns and the country thereabouts. The party travels in a private tourist sleeper. Everywhere along their route they

to detail the sight-seeing than an attempt to set forth the spirit and true significance of it all,—a new thing, a thing only to be realized by contact with the party and a partial participation, at least, in its program.

So let's pass over the trip through the Larkin Factories in Buffalo, which was interesting but had no special signifi-



The School Circles the Nation

are welcomed and shown the best. They swing a circuit of more than nine thousand miles, seeing representative examples of leading types of American agriculture. They pass through thirty-three cities and twenty-six states. The expenses of the boys who take the trip are borne by their home communities.

On October 25 of this year the party was in Buffalo; on October 26, in Rochester; and on October 27, in and about Schenectady and Albany. Two Cornell men joined the party in their sight-seeing of northern New York. The writer was one of these.

These paragraphs are less an attempt

cance, and hurry to draw up a chair at the Chamber of Commerce banquet that evening. Perhaps we do so not without misgivings, but the whole affair is exceedingly unbanquetlike. There are no frilly courses, and no rhetoric. A big man, an Ironmaster, talks to the boys as friend to friend, speaking of East and West. He tells them what the East can give them and what they have for the East. That is all of the speaking, but afterwards, in the club room, notice the Ironmaster over there on the sofa with the shy youth from the Imperial Valley. He is drawing the boy out; the boy is

(Continued on page 224)

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Read This And Then— We have an idea that the editorials of *The Countryman* ought to foster and set forth things close to the interests and ideals of all Cornell Ag. men, past and present. From this standpoint, we try to make them interesting and vital. Read them over; if you like them all right; but if you don't, tell us about it and we'll see what we can do.

Better Breeding We are past the day when it seems necessary to urge everyone to maintain a pure bred herd. No longer is the advisability of such action a debatable question. The truth of it is old and tried. Logical theories have been made facts and, today, no one knows better than the man himself, who owns a scrub or grade herd, that this kind of a herd means a loss to him every day he keeps it.

Wages are rising higher and higher every year. Here at the College we are taught that farm labor is the one big factor to consider in keeping a cow account. We find that the big difference in dairy herd accounts is not a matter of expenses—no, the expense of maintaining a scrub and a pure bred herd is about the same. The big difference noted in these accounts is the difference in receipts and the difference in profits. Actual and theoretical investigation seem to show that the average scrub and grade herds are not producing fair wages for the owner; while the average pure bred herd is, no doubt, furnishing a good living for the breeder.

During the last decade or so the pure breeds have made rapid strides until now it is not an uncommon occurrence for a pure bred dairy cow to produce from 90 to 100 pounds of four per cent milk in a day.

The question now arises, how long will this pure bred supremacy reign and are the different breeds as a whole becoming better? Are the percentages of good animals raising and the percentage of poor animals decreasing? This, indeed, is a vital question. If we would maintain that same high mark in the different breeds we must practice selection and that very rigidly. Here in the College we have a standard requirement of work. If a student, after entering, does not maintain that same high standard he is dismissed from the College. Likewise if breeders find that they have animals, which are below their ideal standards of the breed, should they not discard these animals from breeding purposes, rather than maintain them as representatives of the breed?

Not many years past it seemed, to many of us, a waste to discard the culls and scrub herds. Now we are confident that the opposite is true. If now the various breeders will separately get together to discuss possible means of raising their standards so that in some manner they may eliminate the poorest of their animals, if they will but realize the big advantages in selecting only the best of their number for breeding purposes, then surely the various breeders will have taken a step forward, they will have placed their breeds on an even higher plane, and lastly they will have insured themselves against any possible regression or deterioration of their breed.

We must act together on whatever policies seem to be for the best interests of all. Only by consolidated and positive action can results be hoped for. If Holstein men and the Jersey men and Guernsey men and Ayrshire men and all the others can get together on the common cause of a living wage from their business, why can they not get together in the common cause of higher standards?

The Animal Husbandman Can't you see him—feet staunchly apart; weathered face aglow with judicious enthusiasm; man's-sized hand, gentle as a woman's, stroking the perfectly conditioned side of the best in his herd? There he stands in his own barn and shows you his stock, rolling over his tongue with honest gusto their elaborate nomenclature, nor taking pause even at the third and fourth generation. "How old do you figure that heifer is?" he will ask you, and "What do you think Pauline made last month?" And when you guess a month or so too much or a pound or so too little, it is good to see his face.

The Country Life Movement owes a lot to Animal Husbandry. One of the worst things about the old country life was the stifling of rural talent. In its great development Animal Husbandry, and particularly

the New Dairying, has given outlet to the scientific and aesthetic instincts of the man on the land. He stands today a fine type of rural citizen and rural gentleman. May his tribe prosper!

Open Fires Wood fires on the hearth are expensive, messy and, as compared to the more modern devices, inefficient. Therefore, their persistency in the American farmsteads appeals to us as an inspiring thing, bearing witness to an abiding desire and endeavour for those high moment of life which are to be desired, even above efficiency.

Plans for Alumni Notes From now on the leading note in our department of Former Student Notes will be an attempt to portray the personality of the man as well as record his performances, provided—

First, that Cornell men will write of other Cornell men at work in the agricultural world and send us the write-ups, preferably accompanied by a photograph, this photograph to be preferably a snap-shot of the man at his work rather than posing in a studio.

Second, that these write-ups be less than a thousand words in length; that they be endorsed by the full name of the sender and signed at least with his initials; that they tell the truth and avoid extravagant eulogy.

Surely you know of some former student whose work in the agricultural world is a credit to Cornell. Write us about him.

"Us farmers" are nearly distracted with the sound of the word, co-operation. It's co-operation this and co-operation that until we almost come to despise the word. We heard a well known breeder from Madison County say, last summer, that if we would but accent and lay more stress on the last four syllables of the word—*operation*—, more would be accomplished in less time and with less talk.

The farmer who had other people's signs on his outbuilding was usually poor and shiftless. The farmer who has his own signs in evidence is usually prosperous and progressive. "It pays to advertise!"

Note to Certain Ag. Students: A stock question of the practical farmer is, "What is *the right side* of the cow to milk on?" The answer is italicized for your convenience.

Speaking of Italian Gardens, the lecturer in Landscape Art stated that the truly classic garden contains no flowers, and the freckled fellow from Fredonia was heard to remark that their home garden was classic, all right.

Well, 'twill be 1917 before we see you again, so—Merry Christmas!



Campus Notes

Anniversary Meeting Of the Lazy Club

Twenty years ago the Lazy Club of Horticultural students moved into a new club house which had been built for their use at the greenhouse range, situated on the present base ball field. On Monday evening, November 13, the existing sections of this Club—Pomology, Landscape Art, Vegetable Gardening and Floriculture—celebrated the event in the auditorium of the Home Economics Building. The following inspiring letter from Dr. L. H. Bailey, the founder of the Club, was read:

"It is gratifying that the Lazy Club has saved itself through twenty years. The Club stood in its beginning for one idea,—for free expression of all its adherents, meeting as free men and women on common ground. It had no officers, but only leaders who arose on occasion. It had no membership, but only participants and coöoperators. It had no regulations, but only common interests. Customs grew up about it, which it was special delight of the attendants to shatter. It is difficult to precipitate certain motives of action, and impossible to crystallize them; they accomplish themselves best when they remain in solution.

"The Lazy Club was a corrective of dogmatism in teaching, of the desire for exact prescription in scientific studies, of the clique spirit among students.

"Its later history I do not know so well. I hope that its existence is much more than an historical memory of twenty years. In these years the College of Agriculture has grown amazingly. Many interests have come into it. The curriculum has become extensive and involved. Among so many

students there are currents and counter-currents. There is ever the need that democracy shall propagate itself and that students and teachers may sometimes sit together without restraint and contest their opinions.

"Many of the choicest memories center about the Lazy Club. Those meetings were clear realities, conferences of man with man, when all came together without thought of reward in marks or in social standing. The roll of those who attended is now a long one, and many of them have traveled on. It is an honorable list, good to remember.

"In your celebration I hope that you will have much satisfaction and much good fellowship. Pray bear my greeting to all those who, at the end of these eventful years, are privileged to partake. In your review of the history, I know that you will not neglect the future; you will make plans for another twenty years of good activities."

Professor F. A. Waugh, of Amherst, Mass., gave an interesting and instructive talk on the old Lazy Club and its influence on horticultural advancement. He declared that no man could adequately describe the meetings of the old Club because no one of today could appreciate the circumstances or the environment under which the interesting or humorous incidents occurred. He spoke feelingly of John Craig and Jacob H. Cowan, two of the leading members of the Club during the time he was a member.

Professor A. C. Beal, chairman of the program committee, presided and read greetings from seventeen prominent alumni members.

Mr. C. W. Whitney, '13, sang some selections in his usual pleasing manner.

The large audience enjoyed the social hour at which the traditional Lazy Club refreshments of cider, doughnuts and apples were served.

The Department of Floriculture had tastefully decorated the room with chrysanthemums and foliage plants interspersed with enlarged photographs of the former Professors Bailey and Craig, and the old Lazy Club house which were placed on easels among the other decorations.

The arrangements were in charge of Messrs. Clark, Dilts, Hallock, Mills and Sand, with Miss Minns, Messrs. C. E. Hunn and Paul Work, and Professors A. C. Beal and R. W. Curtis of the faculty.

A. C. B.

Ag. Assembly Professor J. S. Shearer, of the Department of Physics, gave an illustrated talk on the history of the campus at the November Assembly. Professor Shearer has collected a series of famous lantern slides, tracing the rise of all the buildings on the campus from the foundations of the very first. His talk was attended with intense interest.

After the speaking, C. W. Whitney lead the Assembly in the singing of that ancient classic, *Three Blind Mice*. Great enthusiasm attended this performance, and the audience encored itself repeatedly. After refreshments of apples, doughnuts, and sweet cider, the Assembly adjourned. Many agreed that it came nearer to the original ideal of the Assembly than any other meeting of the past few years.

The Forestry Club Meets

On the night of Tuesday, October 24, the Cornell Foresters assembled in the Club Room and dedicated the new fireplace to Saint Murphius, themselves, and to all purposes to which a fireplace may be put. For the benefit of those uninitiated who may be in darkness as to the iden-

tity of Saint Murphius and in total ignorance of what particular brand of sanctity is his, it may be well to quote from the "Otia Monastica" of Caesarius Frisius.

"There was once a very holy man named Murphius. He dwelt in a hut in Epping Forest, and was famed for his piety among all the wood-cutters and charcoal burners of the region. Now it chanced that in the reign of King Henry, the third of that name, the Lord sent a great fire that brought destruction to all the forest from Waltham Abbey even to Stapleford Tawney. And all the people were in dire straits and extremity of spirits. But the holy Murphius gathered the people about him and conjured the evil spirit to come forth out of the fire. So the demon, with a great cry, fled away and the fire was no more. And when he died his body was laid in Waltham Abbey; and ever after that it gave forth a sweet favor and many miracles were worked therein. So it was known that he was a saint. But when the Eighth Henry despoiled the Abbey, the body was not to be found."

From that day to the present, Saint Murphius has been the patron saint of the foresters and has lived up to his saintly reputation. The foresters were honored by the presence of the holy man on the evening mentioned as he came to light the first fire on the hearth. This he managed very well for a man of his advanced age, but slipping on our polished floor, at one stage of the ceremonies, he was led into language in no way saintlike.

After the dedication, there was much talk about the hearth, which is the place for fire, and the forest, which is not, and ways and means of drawing the line between them.

The annual camp-fire was lit on November 14, but not out in the woods as is customary. The snow came down upon us and with it weather cold enough to make the club room the more desirable place. "Big eats" were cooked over and under the fire and when the multitude of inner men had been reduced to submission, the bunch surrounded the fire with a wall of feet and the usual collection of yarns were

dusted off and trotted out for approval, which they received. The break-up did not come until long after the conventional hour and no one hurried away.

E. I. K.

Milk Investigation Committee Meeting An important meeting of the State-Wide Milk Investigation Committee was held in Roberts Hall on the evening of October 26th. This meeting was held largely for the benefit of the farmers in this section of the state and

or not the dairy business is to be placed on a firm basis. The educational institutions in the state have to face the problem of helping the farmers do this." For a full report of his speech, see his article in this issue.

The next speaker, Assemblyman Witter, took up another phase of the problem, showing how important a man is the farmer in his community. He also pointed out how the College of Agriculture greatly aided the committee of which he is a member, which is in-



Waiting for Lunch at "Dom. Econ. Caf."

The Home Economics Cafeteria provides on the average of 700 meals a day not including the two training tables which amount to about 100 meals daily. At the present time the average sum paid for each meal is 29 cents. Twenty-two students and nine regular helpers are required to operate the service.

the undergraduates in the College of Agriculture. State Senator C. W. Wicks was unable to attend, but two other members of the Legislature, State Senator A. R. Holland and Assemblyman T. B. Witter were on hand.

The speaker of the evening was Prof. M. C. Burritt, '08, head of the Farm Bureau Department. He said in substance: "Farmers must use the educational agencies available in the state if they hope to compete with dealers. The price of milk is only a temporary question. The prominent issue is whether

vestigating present conditions. Senator Holland, the last speaker, explained why the farmers should coöperate.

President's Annual Report The President's annual report of the University with its needs, its activities and its progress has appeared. One of the most radical changes in the government of the University that has taken place is that the faculty has been taken into partnership with the trustees. This will undoubtedly prove a moment-

ous and advantageous step in the democratization of the University. The president "believes that this method of government is likely to have a far-reaching influence on university management and on the status of the professoriate in this country." The start of the new residential halls system, now caring for 255 students; the institution of two years' drill for all undergraduates and the completion of the new armory are treated in detail. Cornell's need of a new chemistry building to replace Morse Hall, which was destroyed by fire, on February 13, is shown by the fact that 2100 students are registered for courses in chemistry this year. A University press, such as those of Oxford and Cambridge, the preservation of the natural beauties of the campus, and the necessity of raising the salaries of the instructing staff are other needs of the University which are emphasized.

Butter Judging at the Dairy Show There was a butter judging contest at the National Dairy Show at Springfield,

conducted in a similar manner to that of the state judging of dairy cattle, each college team consisting of a team of three men in good standing in the college. The judging was done under the general direction of the National Dairy Show, the immediate supervisor being the Bureau of Animal Industry, Dairy Division, Washington, D. C. There were nine teams entered in the contest. Cornell finished fifth. Penn. State had the highest score. It should be noted that the Cornell team did not have the opportunity to do any preliminary work owing to the late opening of the University, so that in a certain sense the Cornell team worked at a disadvantage as most of the other teams had two or three weeks' practice. The Cornell team was composed of R. S. M. Fraser, '17, E. N. Shelp, '17, and C. E. Gates, '17.

This is the first year of student judging of dairy products, and inasmuch as it usually requires a little time to systematize a judging contest, butter only

was judged. The probability is that next year cheese and milk will be included with butter in the judging. It is hoped that through the student judging of dairy products, a more uniform judging throughout the United States may be obtained. It is a fact of common knowledge that dairy products are sold largely on grade, although this may not be so true now as it will be in a few years when the grading becomes more perfect. It is therefore essential that the leaders in dairy industry be trained in this important phase of this work.

Speaking Stages The winter speaking contests of the College of Agriculture are rapidly rounding into shape. On November 24 the initial try-outs for the Rochester or Pomology Stage were held in Roberts Hall. Competition in this stage is limited to those agricultural students who have taken or are taking work in the Pomology Department, and, as a result of the try-outs, the following have been selected to speak at Rochester during the first week of January: F. P. Cullinan, '17, D. S. Dilts, '17, Miss Marion Hess, '17, C. B. Loudenslager, '17, and J. T. Owens, '17. A first prize of thirty-five dollars and a second of fifteen dollars will be awarded.

Initial tryouts for the Eastman Stage will be held on December 11, and the second try-outs on December 20. Last year more than seventy students participated in the initial trials. From these, twelve were selected, and at the second trial this number was cut to six. The same procedure will be followed this year, and the survivors will speak on the final stage in Bailey Hall during Farmers Week.

Several members of the department of entomology are to attend the meetings of the American Association for the Advancement of Science which will be held in New York City during the Christmas holidays.

(Continued on page 218)

FORMER STUDENT NOTES



Morgan

'00, '02, Sp.—When L. H. Moulton, Farm Superintendent, resigned on November 1, the University lost a valuable promoter of efficiency and better living. There are many believers of uplift and progress but it remains to a few with the proper enthusiasm and clear-headedness to carry vital problems to their solution. Like most successful managers of today, Mr. Moulton worked with his men and became interested in them individually. We remember him around the Ag. College as an inobtrusive, but important individual, ever clad in his "rough-and-readys."

After leaving College, Mr. Moul-

ton worked for several years on dairy farms at Cuba and later on the Ryangue Farms at Brewster, where a herd of pure bred Ayrshires was kept. In 1911 he came back to Cornell, this time as Farm Superintendent. During his administration the University Farm was developed considerably. Many hedge-

rows were removed and four car loads of tile drain were laid. The work was facilitated by the use of modern farm machinery.

In addition to his work here on the farms, Mr. Moulton directed the farmers' use of the University ditching machine during the past summer. Both in managing the farm and in coöperating with other departments, efficiency and accommodation were Mr. Moulton's ideals.

The civic and religious life of Forest Home were visibly influenced by contact with Mr. Moulton. His leadership on the farm and in community activities aided in making better citizens of

his farm help. He got them to recognize the welfare of the community. The little church at Forest Home is a concrete result of his leadership.

Mr. Moulton left to take charge of the large beef cattle, fruit and poultry farms of the J. C. Dold Packing Company, near La Salle. It is a large under-



L. H. MOULTON

taking and, as such, furnishes correspondingly large opportunities for success.

A. J. F.

'00, Sp.—J. E. Hasbrouck is manager of the J. E. Hasbrouck Company at Modena, which deals in coal, flour, feed and hardware. He is also managing a 250 acre farm where he has set out 3000 apple, 1000 pear and 1000 peach trees. Grade Holstein cows and young stock are maintained on the farm, but more time and land are given to fruit.

'03, M. S. A., '11 Ph. D.—J. P. Stewart has conducted experiments on fruit production, the results of which are shown in the annual reports of the Pennsylvania State College and in Pennsylvania bulletins numbers 115, 121, 128, 134 and 141.

'05, W. C., ('74, B. Arch.)—B. W. Law spent twenty years in business in Havanna and then ten more mining in Colorado. In 1904 he came back to Cornell and took a short course. At present he is retired, living on a farm at Collins.

'06, B. S. A.—F. E. Peck has, several times, alternated between supervising and teaching for the past ten years. His first managerial position gave him charge of Sage College for 1906-07. He next taught agriculture at the Berry School in Georgia, leaving there to become farm superintendent of the Willbraham Academy in Massachusetts. He is now promoting better agriculture as agent for Berkshire County, Mass.

'06, B. S. A.—Ora Lee spent four years with the United States Bureau of Soils and then went home to farm with his father as share tenant. The success of this venture is attested by its present continuance. The farm rotation is hay, potatoes, beans, and wheat. Four acres of apples and fourteen of alfalfa are the other crops grown. Lee has kept a complete set of farm cost accounts in coöperation with the United States Department of Agriculture.

This farm has been in the Lee family for four generations; it was settled by Ora's great grandfather over a hundred years ago. It is to this heritage that Lee has brought Miss Lela Hulslander of Binghamton as mistress of the fifth generation.

'07, B. S. A.—Lynn F. Ayer is superintendent of the estate of E. D. Morgan at Wheatly Hills near Westbury, L. I.

'07, M. S. A.; '09, Ph. D.—C. F. Clark is in charge of the Federal experiment station at Greeley, Col.

'07, Sp.—G. H. Moody has been occupied for four years, on the estate of the late E. H. Harriman, producing milk for private trade in Tuxedo Park. He has succeeded in growing all the roughage and some of the grain for his 150 head of livestock on part of the 1200 acres under his care. This year he also had five acres of onions on muck soil.

'09, B. S. A.—C. M. Bennett is residing at 15 Denwood Avenue, Takoma Park, D. C., and working in the Office of Farm Management on problems relating to the cost of producing farm products. Bennett wishes to announce the birth of a daughter, Jean, on August 15, 1916.

'09, B. S. A.—Charles F. Boehler, after working for various landscape architects for five years, is now his own boss with an office in Detroit. He worked with Stone and Wellington of Toronto for the two years immediately following his graduation. He next spent three years at Boston in design work, during the last two years of which he was employed by Warren H. Manning. This was the last position that he held previous to going to Detroit.

'09, Ph. D.—Donald Reddick is spending a half-year of his sabbatic leave in the plant physiology laboratories in Johns Hopkins University at Baltimore, Md.

(Continued on page 232)

De Laval Superiority

Demonstrated Once More
at the National Dairy Show

Butter made from cream separated by De Laval Separators made the usual clean sweep of all highest awards at the great National Dairy Show held in Springfield,



This display was part of the DeLaval Exhibit at the National Dairy Show. One farmer's wife after gazing at it for a few minutes, was heard to remark to a friend: "That Proves that the DeLaval is I-T it."

Aside from the gold medal and highest awards in these important classes, the great majority of all other awards and highest scores were likewise given to De Laval users, again conclusively demonstrating the superiority of the De Laval dairy products, as at every other important quality contest the world over for nearly forty years.

Mass., in October, this year, as it has always done at every National Dairy Show or Convention of the National Buttermakers' Association since the beginning of these important annual contests in 1892. The highest scores in the various classes were as follows:

Whole Milk Creamery Butter

The highest award in the whole milk creamery butter class was made to N. C. Nelson, of Grove City, Pa., who is a user of a De Laval Power or Factory Separator—Score 96.

Farm Dairy Butter

The highest award in the farm dairy or home-made butter class was made to Mrs. P. H. Robinson, of Egypt, Mass., the butter-maker on Thomas W. Lawson's famous farm, and for fifteen years a De Laval user.

Market Cream

The three highest scoring entries in this class all came from the New England States, and each prizewinner is a user of a De Laval Cream Separator. The scores were as follows:

First:—T. P. Lindsay, Southboro, Mass.
Score 96. Mr. Lindsay has used a No. 17
De Laval for five years and says: "It
can't be beat".

Second:—Branford Farms, Groton, Conn.

Score 94½
Third:—A. S. Harris, Fitchburg, Mass.
Score 9½

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165 Broadway, New York 29 E. Madison St., Chicago.
50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER

Where you saw it will help you, them and us.

Campus Notes

(Continued from page 214)

**Frigga Fylgae
Meeting**

The first meeting of Frigga Fylgae was recently held in the Home Economics Auditorium. After a short business session, the party was addressed by Miss Rose on the subject of state support of the Home Economics Department. Miss Van Rennsalaer gave an interesting account of her vacation.

**Freshman Get-Wise
Meeting**

The annual Freshman Get-Wise Meeting of the College of Agriculture was held in Roberts Auditorium on the evening of October 26. Although the crowd was not as large as usual owing to many conflicting engagements on that night, considerable enthusiasm was manifest. C. B. Louden-slager, '17, acted as chairman of the meeting and directed a program composed of speeches of advice and Cornell songs. Dean Mann gave some good points on the proper balance of the two essentials of a well-rounded college life, studious and student activities. Professor Everett, '91, made a plea to the incoming class to study the life and works of Andrew D. White in their search for inspiration. Managers of the athletic teams, the glee club, and the Editor of the *Countryman* made plain the varied activities which welcomed the freshman to participation. C. W. Whitney, '13, accompanied by L. C. Goldstein on the piano, gave several excellent solos. After the election of A. A. Whitehall, '20, as temporary chairman of the class, the meeting adjourned.

**Tioga Farm Bureau
At Cornell**

Over a hundred farmers of Tioga County motored to Ithaca on October 20th, bringing their wives and twenty boys from the vocational class at Owego Academy. The party was in charge of the farm bureau manager, E. R. Zimmer. After lunch in the Home

Economics Cafeteria, the members gathered in Roberts Assembly Hall where they were addressed by Acting Dean Mann and others. Professor Mann explained certain phases of the college work. Professor Wheeler then took the platform and emphasized the efforts of the college to reach the farmer through the media of bulletins and extension schools. Professor Stone gave an interesting account of the various activities on the University farm. The party then visited the Dairy Department where Professor Stocking explained the salient points of this phase of agriculture. After this, a walk was taken to the poultry and animal husbandry buildings where all questions coming under the various branches were answered. A demonstration of tractor plowing and an address by Professor Wing concluded the program. Meantime the ladies of the touring party were taken on a tour of inspection of the Department of Home Economics.

Miss Helen Knowlton, former instructor in home economics at Cornell, is now head of the Home Economics Department at New Hampshire State College and also holds the position of dean of women.

The Home Economics Departmental Staff has been increased by three new members this year. Miss Margaret Holmes, a graduate of Simmonds College and formerly employed as assistant to the secretary of the National Education Association, is now acting as executive secretary of the department of home economics. Miss Julia Gleason, formerly a teacher at Rockford College, Illinois, is now assisting in Clothing and Textiles. Miss Adele Koch, a graduate of Columbia is now assisting in Foods.

Professor Montgomery of the Farm Crops Department presented a paper before the American Society of Agronomy on November 14 at Washington, D. C.

(Continued on page 220)



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Campus Notes

(Continued from page 218)

I. N. Vorhees, '17, has been appointed chairman and P. D. Flanner, '18, assistant chairman of the Ag. Tax Committee.

W. S. Vanderbilt, '17, has been appointed chairman of the committee on Ag. Assemblies.

The Animal Husbandry Department has recently been presented with two Hereford heifer calves by Albert Mitchell, '17. These animals are now used as the nucleus of a herd of that breed which is used in the courses of beef cattle judging.

Mr. K. J. Seulke of the department of animal husbandry will represent the department at the International Livestock Show at Chicago this month.

The enrollment of short course students this fall is considerably below that of last year. There are 258 registered as against 425 last season. Although no certain explanation of this can be given, it is suggested that it may be due to the similar winter courses now being given in the high schools of the state.

Professors J. G. Needham and G. C. Embody of the department of biology are members of a newly organized committee appointed by the local board of commerce to investigate fishing conditions in Cayuga Lake. The ultimate aim will be to restock the lake with fish. With this end in view, a study of fish food will be made and other data will be gathered. Spawn beds are to be dug in Fall and Cascadilla creeks.

Synapsis, the graduate club in plant breeding, has elected the following officers for the ensuing year: Chairman, F. P. Bussell; Secretary, C. J. Hunn, '08; Treasurer, T. Bregger.

The faculty of the College of Agriculture has made no new ruling in respect to cuts of classes just before and just after the Christmas vacation. Such absences of Ag. students from any courses in the University will be considered as single cuts. In the colleges of Arts, Civil Engineering and Law, such cuts are to be severely dealt with.

C. H. Hadley, formerly an investigator in entomology at Cornell, has accepted a position in the Extension Department of State College, Pennsylvania.

The Women's Conference in connection with the Eighteenth Annual Normal Institute for New York State Workers was held in the Home Economics Building, October 26 to 28.

Miss Florence Ward of the States Relations Service of Washington, D. C., attended the meetings of the farm bureau agents and extension workers of New York State which were held at Cornell, October 30 to November 2. At noon of November 1 the seniors in extension served a luncheon to the extension workers of the state.

Owing to the lack of funds, no Short Course in Home Economics is being given this winter.

Mr. E. V. Hardenburg attended the session of the National Potato Growers' Association at Washington, D. C., during the week of November 13.

Mr. A. C. Hottes, formerly an instructor of floriculture at this university, is now an assistant professor of Floriculture at Ohio State College.

The College of Agriculture won the Intercollege Cross Country, held on Saturday, October 25. A. R. Tinnerholm, '17, was the first of the eighty-five runners to finish, and Ag. has five other men in the first fifteen.

(Continued on page 244)

MERIDALE JERSEYS



SAYDAS QUEEN OF VENTNOR 168033

Sayda's Queen of Ventnor 168033, world's record cow at twelve years old, on a record of 13280 lbs. milk, 890 lbs. butter, carrying a calf for 103 days of the test. Three other yearly records prove her consistency in continuous dairy work.

She is dam of three cows and two bulls and granddam of twelve tested cows in the Register of Merit. Her full brother in blood is sire of thirty-eight in Register of Merit on yearly tests.

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Cornell Men

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Cornell University, Aug. 12, 1916.
Carbola Chemical Co.
Gentlemen:

After giving Carbola a good trial, I am very glad to say that we have found it to be far superior to whitewash in ease of application and in that it does not scale or rub off to any extent. Further, the house has been free from mites during the past year. As our order would indicate, our first test warrants a much more extensive use. Sincerely yours, O. B. KENT.



A snow-white mineral paint combined with the world's strongest germicide. Comes in powder form. Mix with water and put on with brush or sprayer.

Use It Instead Of Whitewash
to keep barns, poultry houses, etc.
clean and sanitary. Your dealer has it.

10 lbs. (10 gals.) \$1 and postage
20 lbs. (20 gals.) \$2 del'd 50 lbs. (50 gals.) \$4 del'd

Trial package and booklet for 25 cents and your dealer's name.

Carbola Chemical Co.
Dept. B 7 East 42nd St. New York

Some Observations on the Milk Question (Continued from page 181)

been convinced of the justice of the dairyman's case. I believe we can not give the dairymen of the state any greater help than by holding up to the public the facts on the cost of milk production in this state.

2. *Coöperative Ownership* by farmers of milk shipping and manufacturing facilities, by furnishing facts as to—

- (a) The principles of coöperative organization
- (b) Requirements for and costs of shipping stations, creameries and cheese factories
- (c) Constitutions and by-laws of coöperative ownership associations.

Already some of needed facts have been given out and more will be forthcoming as soon as they can be made available. I am well aware of the opposition which may be in store for those who undertake to carry out this part of the program, but I believe we are proceeding from a right premise and that we are serving the whole public by our efforts.

3. *Increased Consumption of Milk* through—

- (a) An advertising campaign to demonstrate:
 - (1) Its comparative food value
 - (2) Its comparatively low cost
 - (3) Its possibilities as a substitute for more expensive foods.

Of course, as individuals or separate agencies, we would probably not get very far with this part of the program. Perhaps we will not anyway. But, I believe that if this campaign is organized properly, and gets the help of all parties,—the Dairyman's League, the State Grange, and other state agencies, and if we are all willing to take hold and work, we can succeed.

I am speaking of all these things from an educational viewpoint. To actually gain efficiency, to build these plants, and to advertise milk as a food is the business of farmers themselves. We are simply aiming to furnish farmers' organizations with the facts for the campaign.

In writing to advertisers please mention The Cornell Countryman

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of a practical book on tillage, issued by a firm who have for nearly 50 years studied every phase of cultivation and who make the tool that's the favorite of thousands of farmers—the original CUTAWAY (CLARK) Disk Harrow. This is a textbook—not a catalog—and it's free. Send for it. Learn the reasons for intensive tillage. Learn why the Disk Harrow is used and how it acts. It's the tool of many uses on farm, orchard, garden and cut-over land. It makes perfect seed beds, saves time and labor and lasts a lifetime.

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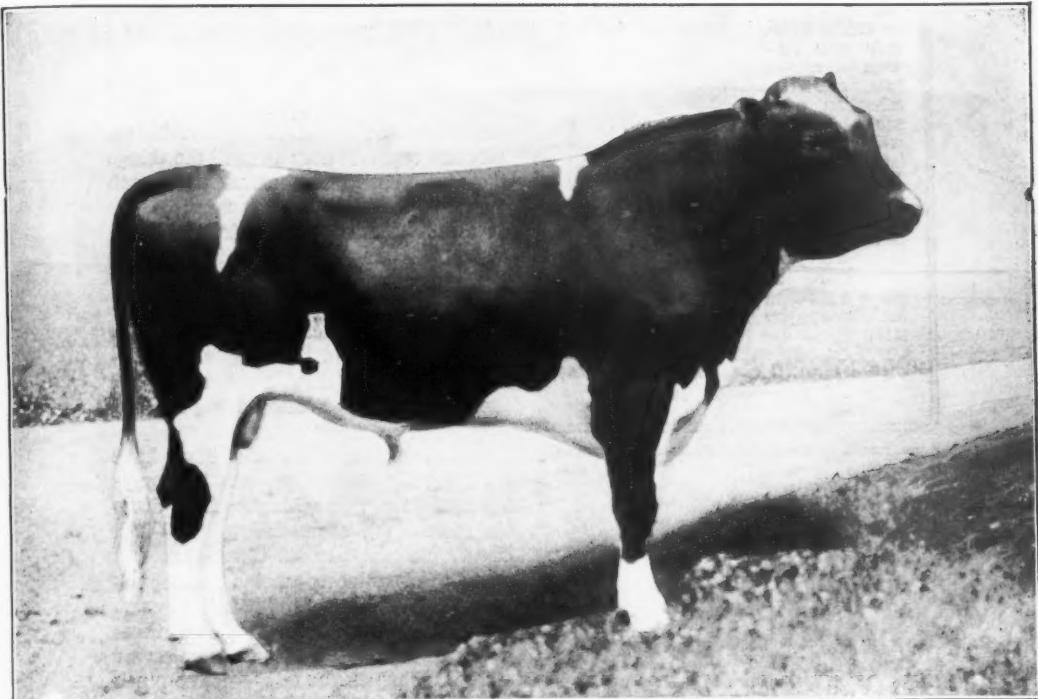
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The World's Champion Cow

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ORMSBY JANE KING *now in service in Maple Lawn Herd, Cortland, N. Y.*

The dam of this wonderfully bred bull is not only the World's Champion Butter Cow of all ages or breeds, but she holds her position by a margin so wide that it seems unassailable. Moreover, her record (44.42 lbs. butter in 7 days) was made from a milk flow of 721.4 lbs. She holds all butter records from 1 to 100 days.

**Consider These
Records**

MILK	BUTTER
114.4	1 Day 7.39
721.5	7 Days 44.42
3241.0	30 Days 183.16
6231.7	60 Days 360.31
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10153.0	100 Days 566.98

Something desirable in all ages for sale at all times.

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Mr. College Student

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Don't lean on dad: just show that you have back of you and your efforts an article which in one transaction not only pays your way, but secures you friends, schooling and profit. TODAY write for booklet on GLAZED TILE SILOS. Ask for sample to how. Don't be a clam! Get busy, as you must; know the silo is a growing feature on the farm.



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More calves have been raised on Blatchford's Calf Meal than on all other milk substitutes combined.

100 lbs. makes 100 gallons of milk substitute, costing only one-third as much as milk. Prevents scouring and insures the early maturity of sleek, handsome calves.

It is steam-cooked and no trouble to prepare or use.

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(Continued from page 207)

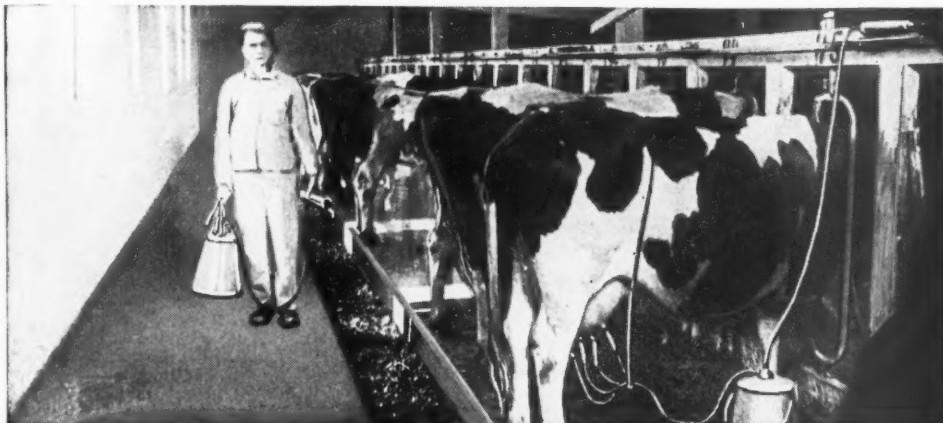
telling him of his home place, where they grow crops in a walled valley below sea level, and the Ironmaster is telling the boy of his home and his boys. That boy will go home knowing what a great man is; and he will know that he has a long way to go.

Back on the car in shirt-sleeves, perhaps pajamas, the boys crowd around "The Boss" of the trip, B. H. Crocheron, '08, and together they go over the things they have seen and consider what each has meant. The greatest thing of the day, they decide, was the Ironmaster—a man who has helped build a civilization and remained a boy inside. They too are to help build a civilization—"a rural civilization that will be as complete and effective as other civilizations"—and they must remember that "front" and "side" are parts of another process.

The class breaks up; the boys have their nightly pillow fight; the Boss pays his accustomed good-night trip down the aisle—"All right, fellows: call it a day." He switches off the lights and comes back to the smoking compartment. "Great bunch of kids," he says. "Gosh; how they grow!" And then, over many pipes, he tells us about some of the fellows on the trip,—not so much of this, however, as of boys who have been on past trips and who have returned to their home communities and unconsciously set a standard. "And that's what we need above all else: country life needs leaders trained from among its own people."

At Rochester, the next morning is spent in seeing the Eastman, and Bausch and Lomb plants and in the afternoon seven big machines owned by farmers of the Monroe County Farm Bureau line up before the hotel and take the crowd out to see the indoor farms of the Irondequoit region—two thousand dollar

(Continued on page 226)



Dairy Frontier Farms, Erie, Pa.

"I consider the HINMAN the *simpler* and *most complete* machine in use. It certainly solves the labor proposition. As to the sanitary part, our milk goes into bulk to the Erie County Milk Association, the doctors of Erie recommending its use for baby milk on account of its being cleaner and more sanitary."

E. W. MERRILL, Supt.
Frontier Farms, Erie, Pa.

SIMPLICITY

The Key and Biggest Reason for the 8 Years Success of
Hinman Milkers

Invented along simple lines by practical dairymen on the farm—not in a city machine shop. No complicated pulsating mechanism—no air pipe lines—no vacuum tanks. Nothing to wear out. Nothing to get out of order. Nothing to break. Easy to clean.



A Single Pump



Valve Chamber in Pail Cover



Natural Action Teat Cup

THE PUMP

A simple one piece pump—operates at slow speed with long stroke produces exact amount of vacuum required with no possibility of too much pressure. Pumps put out eight years ago are still in perfect working order due to extreme simplicity.

THE VALVE CHAMBER

The vacuum is in this chamber, in pail cover. Its simplicity is of great importance. This chamber has but one moving part. The weight of milk opens valve or disc when suction is stopped. This regular action also helps natural action in teat cups so that circulation of blood in teats is always normal.

THE TEAT CUP

Not a rubber sack, but simply a pure rubber ring slipped over a metal cup. Natural in action—not an upward squeeze. Gentle as the calf's lips—more uniform than the human hand.

WILL PAY FOR THEMSELVES BEFORE SPRING

Teach your boy to milk with the HINMAN. Save one hired man. A 3-unit outfit costs less than his pay and board for six months. Turns over a clear profit of its initial cost every six months.

Write for Big FREE Catalog and learn why you cannot afford to go on sacrificing extra profits if you milk ten cows or more.

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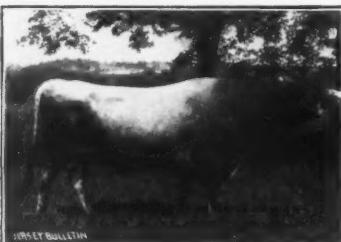
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"Success for 8 Years"

HINMAN
The ^{1st} Valve Chamber
MILKER

Over 22,000 Sold

Where you saw it will help you, them and us



The ton bull, Mr. Polo of Bleak House. His sire dam, full sister and 4 three-quarter sisters are all world record animals.

Just This and Something More

Mistress of Bleak House scored 95%, held World's 4-weeks' butter record; also highest year record for cow finishing in 12th year. At 17 looks fit for 5 or 6 years more. Jerseys, and their pedigree show more careful breeding for many generations.

Four Bleak House Jerseys made authenticated butter records averaging 905 lbs., 800 lbs., and sixteen, 717 lbs. (4 heifers, 2 old cows.) Three won gold medals, twelve hold some world records.

With care below many commercial dairies. But then they are larger, perhaps, than any other Jersey.

More in small folder.

HARRY S. GAIL
East Aurora, New York



Special and New Apparatus

for use of Creameries, Cheese Factories, Milk Shippers and Dairymen.

Write for our Special Circulars and Prices.

D. H. BURRELL & CO.
Manufacturers
LITTLE FALLS, NEW YORK

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A Traveling School of American Civilization

(Continued from page 224)

land under glass, growing as many as five crops of truck a year. Then back across Rochester and out Spencerport way to see the fruit farms. In each car is a New York State high school boy who is doing Junior Project work. To hear these fellows from opposite sides of the continent talk clubs and crops on common ground gives one a great idea of the recent nationalism of the agricultural movement.

Travel trips such as this have had to withstand a good deal of derogatory criticism, theoretically apt. The thing partakes too much of the nature of a "stunt" to get by without suspicion, and it is entirely reasonable to suppose that various features of such trips might be evil in effect on the boy, on his community and on the status of club work in general. The boys may be used to exploit the agricultural possibilities of the country from which they come. They themselves may be exploited and exalted to a point where they attain a distended idea of their own importance.

It is certain that these are dangers. It is equally certain that these dangers are being studiously avoided on this particular trip. The boys are not allowed to become sandwich-sign men for their home Chambers of Commerce. Many sweet words, it is true, are occasionally hurled at their defenseless heads by such individuals as customarily present the keys of the city "in the absence of His Honor, the Mayor," but these seem not to have taken serious effect. The pajama classes tend toward a shifting of the values of things seen and heard.

Another pertinent objection to travel trips is that the prize may be out of proportion to the effort expended, and that this gives grounds for false inference as to the possible reward of tilling a little ground, however well. Those in

(Continued on page 228)

Our Workmanship and Fitting
have not been equaled
in this city,
so why not try

Urband & Son

Merchant Tailors

and convince yourself
of this fact.

204 North Tioga St.
Opp. City Hall

A Traveling School of American Civilization

(Continued from page 226)

charge of this trip take exactly this point of view and impress it upon their boys: "None of you fellows have earned or won this trip; all of that lies in the future. Your being here represents an investment made by your home people, in the hope and expectation that in later years you will remain among them and repay their investment with compound interest."

These people of the West have looked a long way ahead and bent a step towards the things they see. They look toward a day when country life shall constitute "a civilization that will be as complete and effective as other civilizations." And so, by competition, they have selected some of the best of their farm boys and sent them forth to realize what civilization means; to consider the materials from which they must build; to choose; to return home; and to go to work.

Home Economics in Print

(Continued from page 200)

results of their study. If additional training in writing is necessary, effort should be made to obtain it.

The typical "woman's page" might better be converted into a "home page" in order to appeal to women of the present day, whose interests are often of a more serious nature than some critics judge. The home page at its best should be of interest to men as well as women, just as the news sheets and the editorial page are of interest to women as well as men. The number of sound questions that both men and women ask of a department of home economics in an educational institution indicates a general interest in household affairs.

Besides the daily papers and the magazines that devote more or less space to home subjects, the extension publications of departments of home economics

(Continued on page 232)

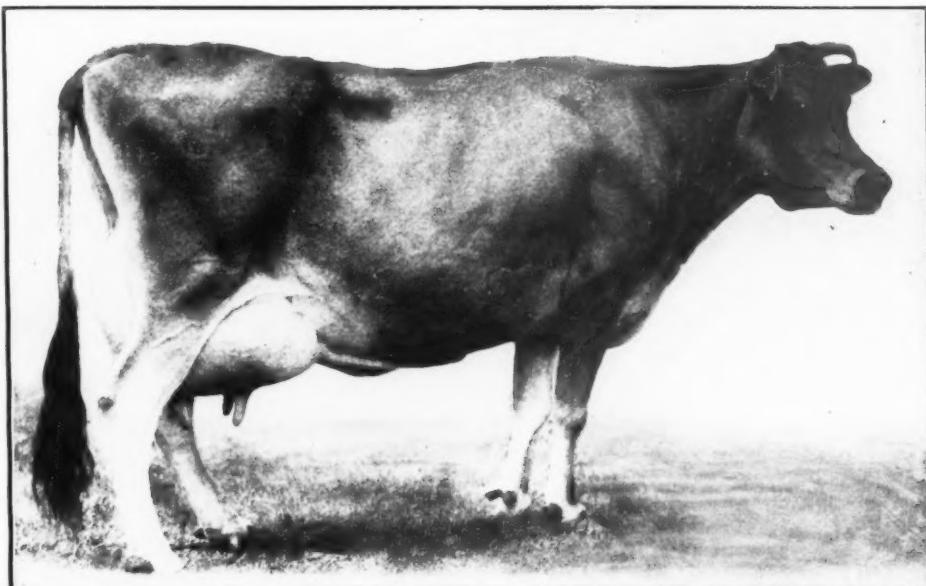
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Offers for sale, Bull dropped March 28th, 1915.
His dam produced 13,127 lbs, milk in one year, testing
743 3-4 lbs. butter. His sire's dam has a record of
13,090 lbs. Milk in her twelfth year, testing 746 lbs.,
13 oz. butter. Price \$200.00.

Also some fine heifers and Register of Merit cows
at reasonable prices.

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At Herald Square, the radial center of transportation to all parts of the City. One block from Pennsylvania Station, a few minutes from Grand Central Terminal. Subway, Surface and Elevated Service direct to the Hotel, which is in the midst of the fashionable theatre and shopping districts.

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Rooms	-	-	\$1.50 per day and up
With bath	-	-	\$2.00 per day and up

New popular price restaurant in the famous Palm Garden, one of the most attractive rooms in New York City, and easily reached because of our central location. You will find it a delightful place to entertain your friends.

Imperial Home Dinner served daily from 6 to 8:30 P. M.

\$1.00 per cover

Dancing every afternoon, Sunday excepted from 4 to 7 P. M.

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Overlooking White House Grounds

Close to the State, War and Navy Depts.
Convenient to Theatre and Fashionable
Shopping District

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Rooms, detached bath, \$1.50 and up

Rooms, private bath, \$2.50 and up

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E. C. OWEN, Manager



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Brings the calf to live months old at one-fourth the cost of whole milk.

Leading chemists and feeding experts have put calf raising on a safe, profit-making basis with Sucrene Calf Meal. It saves all the cow's milk; it's cheaper than skim milk.

100 Pounds Equal to \$15 in Whole Milk

Rogers M. Smith of St. Mathews, Ky., writes:

"I have had two heifers on Sucrene Calf Meal, and their progress is quite satisfactory. I estimate that each sack of Sucrene Calf Meal is equivalent to \$15 in whole milk at the price I get for the milk."

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Contains important ingredients often omitted from commercial calf feeds. Blood Meal and Linseed Meal supply a high percentage of digestible protein. Bone Meal builds up a strong frame. Soluble Starch and Malt Flour supply easily digestible sugar. Desiccated Skim Milk supplies valuable ingredients which the calf needs for health and development.

Blood Meal is one of the most important ingredients in Sucrene Calf Meal. Besides being strong in protein content, it is one of the most effective bowel correctives known to science—**prevents scours and other troubles.**

Sucrene Calf Meal is easy to prepare and feed—the calf enjoys it, grows rapidly.

Fill out and mail us the coupon for our book on calf raising. Enclose check or money order for \$3.00 for a 100 lb. trial sack F. O. B. mill.

Please send me Free Book on Calf Raising, and information on other feeds.

I enclose (check or money order) for \$3 for 100 lb. trial sack of Sucrene Calf Meal.
(200 f. o. b. mill.)

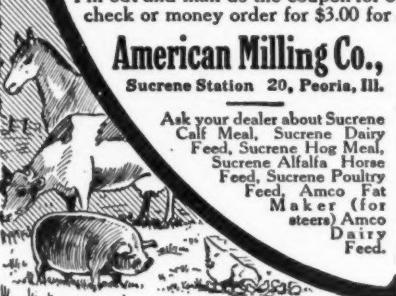
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Where you saw it will help you, them and us



Free Book on Calf Raising

Written by experts. Tells about care of calves from birth till they are able to take care of themselves. Every phase of calf life treated intelligently and authoritatively. Write for this book, it will be helpful to you.

C. U. A. A.

Basketball Schedule

Saturday, December 9th
Uncertain

Wednesday, December 13th
(Non-league)
Niagara at Ithaca

Saturday, December 16th
Princeton at Ithaca

Home Economics in Print (Continued from page 228)

in state agricultural colleges are increasing to such a degree that they are requiring the service of women who know how to assemble material of benefit to home makers and to present it in such form that it will draw readers. A woman holding such a position does not necessarily devote her entire time to writing. It is her business to determine what subjects should be treated and to assign them to the persons in the department who are best fitted to write on them. She should then be able to criticise wisely the form and the style of expression and to assist in making the publication attractive. It is necessary for her to keep abreast of the constant advance in home economics, or at least to know to what sources she may appeal for authoritative information, in order that no incorrect statements may slip by. A position of this kind requires a knowledge of proof reading as well as of copy editing. With its constant spur to further study, such a vocation is of unbounded interest to the woman who desires to qualify.

At least until extension in home economics is developed to the point of requiring definite editorial service, instructors and lecturers need to be able to do such work for themselves. Besides having special training in their subject matter and in its presentation through such means as public speaking and demonstrating, they must know how to write good press notices, circulars, and bulletins, and how to obtain good style in their publications.

Certain departments of home economics are recognizing the need of training in writing and are coöperating with departments of English in an endeavor to meet the demand made on their students. In some of the agricultural colleges, courses in agricultural journalism are being given. Although it is impossible for the student of home econom-

(Continued on page 234)

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Sprayed "Casper's" apples,
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is due to its WHOLESOMENESS
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Farm Use Chr. Hansen's
**Rennet Tablets and
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Also try our
Danish Butter Color

It gives that beautiful golden
June shade and does not affect, in
the least degree, the aroma or
flavor of the butter.

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Rennet Extract, Cheese Color, and
Lactic Ferment Culture, have stood
the test of time.

Chr. Hansen's Laboratory
Box 1212 Little Falls, N. Y.

Where you saw it will help you, them and us

Good Farm Help

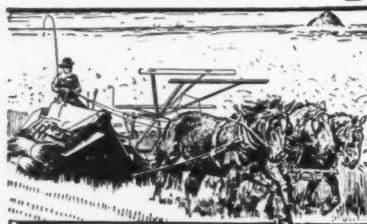
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Home Economics in Print

(Continued from page 232)

ics to devote as much time to a study of journalism as if she were aiming to become a professional journalist, she can at least master some of the essential principles and apply them with common sense, which is a prime requisite for success in any occupation.

Former Student Notes

(Continued from page 216)

'09, B. S. A.—D. H. Fullerton quit county agent work in Kentucky last October to take up dairy farming next spring on his own place in eastern North Carolina. He is now residing at Kings, N. J.

'10, B. S. A.—K. B. Lewis, who was formerly with the Department of Agriculture in fruit transportation and storage investigations, is now engaged in farming at Red Hook, specializing largely in apples.

'10-'11, W. C.—W. G. Brooks has been engaged in horticultural work since leaving Cornell in the spring of 1911. He was assistant State horticultural inspector from June, 1911, to April, 1912. He next assisted his father in the nursery business at Monroe, N. Y. For a few months following this Mr. Brooks did propagation and landscape planting with Charles R. Fish and Company at Worcester, Mass. He then went into business for himself at Monroe, where he is doing extensive breeding work with grapes.

'12, B. S.—Alfred C. Hottes, formerly instructor in floriculture, has been appointed Assistant Professor of Floriculture in Ohio State University at Columbus, Ohio.

'12, B. S. A.—William L. Calvert is Farm Management Demonstrator for the Agricultural Extension Division at the University of Minnesota.

(Continued on page 238)

FOR MORE MILK AND BUTTER
BETTER CONDITION OF STOCK

SCHUMACHER FEED

SHOULD BE THE BASE OF YOUR RATION

Most of Present World's Champion Cows
made their astounding and remarkable records with rations
based on SCHUMACHER FEED. Some of the most famous
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Finderne Pride Johanna Rue (Holstein) World's champion
butter producing cow, produced in one year 1470.5 lbs. butter—
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Finderne Holingen Payne (Holstein) record surpassed only
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age of only 4 years, 1395.6 lbs. butter—24612.8 lbs. milk.

Sophic 19th of Hood Farm, World's Champion Jersey cow,
produced in one year 1175 lbs., 702.5 butter—17557 lbs. milk.

Auchenbrian Brown Kate IV. World's Champion Ayrshire
cow produced in one year 1080 lbs. butter—23022 lbs. milk.

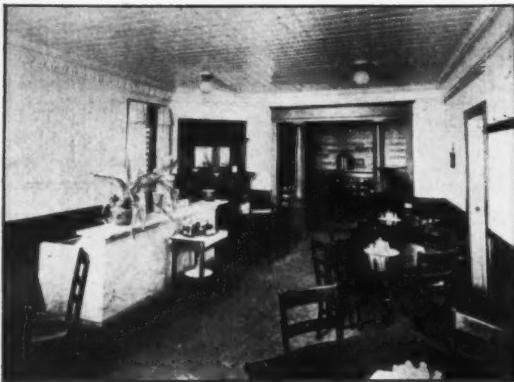
Jean DuLuth Beauty, World's Champion Red Polled cow,
record not yet completed, has already produced in nine months
863 lbs. butter.

SCHUMACHER FEED helped these cows make such ex-
traordinary yields of milk and butter, it will help your cows give
steadily their largest yields of milk and butter.

SCHUMACHER FEED is rich in the condition—sustaining
elements—decidedly palatable—easily and thoroughly digested—
kiln dried—made from various products of corn, oats, barley and
wheat, finely ground, scientifically blended.

No other feed just like SCHUMACHER FEED.
If your dealer does not handle it, write us.

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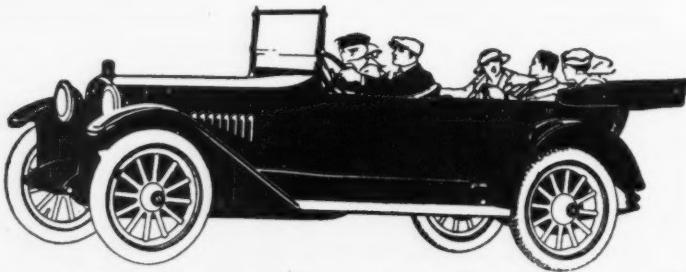
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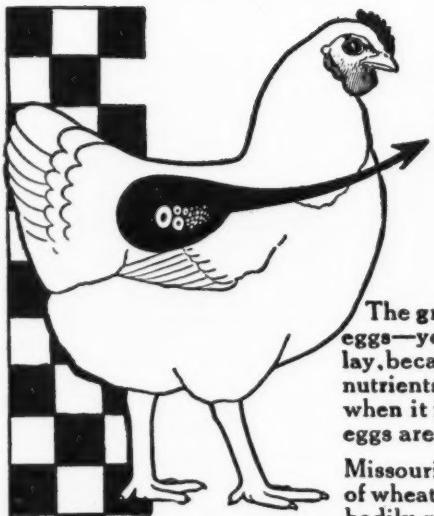
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The Unlaid Eggs

The grain-fed hen usually carries a number of *unlaid* eggs—yolks which she cannot complete into eggs and lay, because her feed lacks the necessary white-forming nutrients. (That's why egg-yolks are found in a hen, when it is dressed). Many of these yolks of unfinished eggs are finally absorbed back into the hen's system.

Missouri Experiment Station tests showed that 100 lbs. of wheat, corn, oats, barley and kaffir corn make (above bodily maintenance) an average of 224 yolks and *only* 154 whites. Based on data from the same experiments, Purina formulas produce, (above bodily maintenance) as follows:

Purina Scratch Feed	247.49 yolks	142.11 whites
Purina Chicken Chowder	<u>182.05</u>	" <u>282.55</u> "
Combined Ration	429.54 yolks	424.66 whites

These feeds, used in combination, form the most perfectly balanced and economical egg producer you can buy. Purina Chicken Chowder is the egg-completing ration; containing exactly the right feed elements to make the necessary whites. That's why we can positively guarantee

More eggs or money back

on Purina Chicken Chowder if fed with Purina Scratch Feed as directed. You take no risk. Write for further information and for our

FREE Poultry Book
(64 pages, illustrated)

Contents: Baby Chicks, Cures of Diseases, Breeding and Feeding Charts, Best Recipes for Cooking Eggs, Poultry, etc. Plans for Poultry Houses, Trap Nests and Fixtures. Daily Egg Records (Spaces for Keeping), Timely Poultry Pointers, etc.

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Silo Satisfaction

There's solid satisfaction in a good silo. Keeps your herd at top-notch both winter and summer. Join the "silo on every farm" movement. Erect a

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"The Silo that Lasts for Generations"
Frost-resisting, fireproof and storm-proof. Strongly reinforced—will not warp, shrink, or crack. No painting—no hoops to tighten. Any mason can erect it. Guaranteed. Send for Silo Book and "Natco on the Farm" illustrating the use of Natco Hollow Tile for all farm buildings.

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Former Student Notes (Continued from page 234)

'12, B. S.—H. B. Munger is head of the Department of Farm Management at Iowa State College, Ames, Iowa.

'13, B. S.—J. A. Barlow is teaching agronomy in the State School of Agriculture at Delhi.

'13, B. S.—Leslie S. Ace has been engaged in practical farm management since leaving Cornell. He is at present in Pashi, Pa., as foreman of the White Horse Farms, where corn, wheat, clover, beets, alfalfa and potatoes are grown. Pure bred Jerseys constitute the livestock kept.

'13, B. S.; '14, M. S. A.—C. E. Simons may be addressed at South Hampton, Long Island.

'13, Sp.—During the years that have elapsed since Harry L. Page left Cornell, he has been on the staff of the University of West Virginia and has served as farm manager on two farms in this state. At the Morgantown institution, Mr. Page supervised the care and feeding of the dairy herd and the experimental feeding of beef cattle, sheep, and swine. After leaving West Virginia, Page became superintendent of an estate at Peekskill, N. Y.; now he is farm manager at the Chilmark Farm at Ossining, N. Y. His crops there include, beside vegetables, twelve acres of alfalfa, some corn, mangels, and potatoes. A flock of two hundred hens and a herd of 75 pure bred Guernseys comprise the livestock under Page's care.

'13, B. S.—After farming for two years, C. B. Raymond is now teaching. He has a position at Greigsville in a consolidated grade and high school.

'13, B. S.—W. S. Stoke has been teaching agriculture in the high school at Gowanda for the past three years. In October last, he was married to Miss

(Continued on page 240)

BROOKSIDE HERD

THE HOME OF GREAT SIRES

The mark of a great herd is its influence on the breed as a whole. "Brookside Herd" has had more influence on the development of Holstein-Friesian cattle than any herd of the breed. This is easily proven. Just consider

The Facts Concerning the Breeds' Greatest Sires and their relation to Brookside Herd

The following bulls were all either bred or owned in Brookside Herd—Pontiac Korndyke, Hengerveld De Kol, King Segis, De Kol 2d's Butter Boy, De Kol 2d's Butter Boy 3d, Korndyke Queen's De Kol Prince, Friend Hengerveld De Kol Butter Boy, Earl Korndyke De Kol, Duchess Ormsby Butter King, Tidy Abbekerk Prince, Sir Veeman Hengerveld, Pontiac Butter Boy, Pieterje Hengerveld Count De Kol, Paul Beets De Kol, De Kol Burke and King Veeman De Kol.

The nearest ancestors of many other famous bulls were also members of Brookside Herd, such as, Pontiac Hengerveld Parthenea, Aaggie Cornucopia Pauline Count, Changeling Butter Boy, Aaggie Cornucopia Johanna Lad, Sir Ormsby Hengerveld De Kol, Sir Johanna De Kol, Pontiac Aaggie Korndyke, Pieterje Hengerveld Segis, Lord Netherland De Kol, Lilith Pauline De Kol's Count, Homestead Girl De Kol Sarcastic Lad and Homestead Jr. De Kol.

AND OUR PRESENT SIRE

KING OF THE PONTIACS IS THE GREATEST BULL OF ALL TIMES

ALSO OUR JUNIOR SIRES "IT" (37.21) AND KING DOLLAR (38.03) ARE TWO OF THE GREATEST YOUNG SIRES OF TODAY

WRITE US FOR PRICES ON BULLS AND FEMALES

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THE MAN WHO WOULD KNOW THE PROGRESS OF THE HOLSTEIN BREED CANNOT AFFORD TO BE WITHOUT

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THE BEST PAPER OF THE BEST BREED!

Articles on feeding by Professor Savage—A brilliant series of articles by Harold McAlister, the noted Statistician of the breed and regular contributions by others equally prominent in the development of dairy cattle. Finely printed and illustrated and edited by men who DEVOTE THEIR ENTIRE TIME to its publication.

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HOLSTEIN-FRIESIAN WORLD
SYRACUSE, N. Y. Address nearest office WATERLOO, IOWA



Commonwealth Hotel

Opposite State House
BOSTON, MASS.

Offers room with hot and cold water for \$1.00 per day, which includes free use of public shower baths.

NOTHING TO EQUAL THIS IN NEW ENGLAND

Rooms with private baths for \$1.50 per day; suites of two rooms and bath for \$4.00 per day.

Absolutely Fireproof

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Flowers are Unexcelled

Flowers by telegraph delivered to any part of the U. S.

The Bool Floral Co.

215 East State Street

Members, Florists Telegraph Delivery.

Former Student Notes

(Continued from page 238)

Marie Stafford of Gowanda. Two of the attendants were alumni: Robert E. Congdon, LL.B., '12 and Bruce P. Kocher, '15.

'14, B. S.—Roger H. Cross is farming with his brother on their own farm situated on the Utica State road, ten miles east of Syracuse; they operated the Ethan Allen Stock Farm at Sunderland, Vt., on a rental basis last year. Alfalfa and potatoes are their principle crops on the "Cross Farm," Single Comb White Leghorns and pure bred Holsteins are the livestock industries.

'14, B. S.—Dr. and Mrs. K. M. Hamilton of Delhi announce the birth of Katherine Mills Mamilton.

'14, B. S.—J. S. Wollen is running his 235 acre farm, located about twenty miles south of Annapolis, Md. Corn and potatoes are his principal crops. He maintains some livestock and plans to raise sheep for market. He is setting out some fruit trees.

'14-'15, W. D. C.—John J. Steacy is now farm superintendent at the Schoharie State School of Agriculture, after having spent two years in the State health inspection service and private co-operative extension work.

'15, B. S.; '16, M. S.—E. L. Banner is in charge of project work at the Bristol County Agricultural School, Segregansett.

'15, B. S.—L. J. Steele is teacher of agriculture in the Holley High School.

'15, B. S. A.—A. W. Roth is now principal of the high school at Machias. Agriculture and home making which he introduced in that school a year ago have made substantial progress.

'15, B. S.—Benton E. Barrington, who, after his graduation, founded the department of vocational agriculture

(Continued on page 242)

TIOGA FARMS

Pure Bred A. R. O. Holsteins

Sires in Service

KORNDYKE ORMSBY PONTIAC, No. 59024--a 27 lb. son of King Segis Pontiac.

PRINCE FAYNE HENGERVERLD, No. 160550--a son of Spring Farm Pontiac Cornucopia from a 23.98 lb. junior 2-year-old dam.

Females in herd are daughters and granddaughters of Northern Fobes DeKol, Beauty Pietertje Butter King, Pietertje Colantha, Maplecrest Korndyke Hengerveld, Paul Clyde 2nd, Plum Pietertje Prilly, Tidy Abbekerke Prince, King Segis Pontiac, and King Segis Pontiac Alcartra.

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Metropolitan rates. College men can
get the best and the most for their
money if they

Ithaca Phone 513 Call at 204 E. State St.

Former Student Notes

(Continued from page 240)

in the Dansville High School, which is
one of the largest and best equipped in
the State, still continues as its head.

'15, B. S.—Robert D. Edwards, who
has been with W. Atlee Burpee and
Company, Philadelphia, has just been
made office manager.

'16, B. S.—G. A. Haskins is farming
near Rochester. Some of his crops are
apples, alfalfa, beans; poultry and
dairying are his livestock enterprises.

'16, W. C.—W. A. Haviland has 75
acres at East Windsor Hill, Conn., where
he is raising "shade grown" tobacco.
His yield this year was 1100 pounds per
acre.

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Do you remember the story of the
inquisitive lady who some centuries
ago liberated the world's most im-
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The dam of our first sire was "Jolie Johanna," grand champion cow at the St. Louis Exposition. From this sire we got such splendid individuals, we soon realized that if their offspring were to be any improvement on themselves, we must mate them with a sire of extreme quality.

As a result of this aim in breeding we have had six cows in our herd which have averaged to produce over

Six Cows ... 100 pounds milk in a day ... Six Cows Present Herd Sires

KING KORNDYKE SADIE VALE WAYNE and KING KORNDYKE BURKE	are  King Korndyke Sadie Vale Queen Veeman Wayne 29.27 at 4½ yrs. A daughter of Sir Veeman Hengerveld. Queen Milk and Butter Champion Ruby DeKol Burke Spofford, 2nd, 29.32. Highest record daughter of Earl Korndyke DeKol.
--	--

We think these sires are just a little bit better than any that have preceded them.

Are We Not Justified

in expecting some results from their daughters from such cows as we already have in the herd?

We Have No Bargain Counter

But if you are looking for something good, if you are looking for something that you can take home and be satisfied with, if you are looking for cattle of this kind at reasonable prices, then come and look our herd over and pick out what you want.

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Campus Notes

(Continued from page 220)

On the evening of November 24, the first regular meeting of the possible new genetics club was held in the Forestry Building. An interesting discussion on Luther Burbank was conducted. A. W. Stand, '18, gave a brief sketch of Burbank's life and several anecdotes and reminiscences of Mr. Burbank were told by Dr. E. E. Barker. The subject proved to be of such interest that the club decided to continue the discussion at the next meeting on December 1. At this meeting names for the club will be suggested as there has been no definite club organization as yet. Although it was started by undergraduates taking genetics courses, all students interested in the work will be welcomed at its meetings.

Glista Ernistine, a Holstein of the University herds, has just completed a record of 33.32 pounds of butter in 7 days. This is her third 30 pound record. Her 30 day record is 3027 pounds of milk and 136.6 pounds of butter. Glista Erickie, another 30 pound cow, is now on test.

The following students have been elected to membership on the Student Honor Committee for the year 1916-1917: Miss Helen Adams, '17, Robert A. Browning, '17, William D. Crim, '17, Dewitt U. Dunham, '17, John E. Houck, '17, Arthur L. Hoffman, '18, Manley Inscho, '18, Joseph B. Kirkland, '18, Howard S. Sisson, '18, Ralph C. Van Horn, '18.

The terrain about the animal husbandry buildings at present presents a rather military aspect due to the trenches and concrete redoubts incident to connecting up the buildings with the main Ag. heating plant. On the other side of the barns, foundations are well under way for the new sheep barn of the department.

Maple Glen Farms

Florham Laddie 20431

is our herd bull. He is a son of Ne Plus Ultra 15265 A. R., the sire of 12 A. R. daughters that average over 200 lbs. of fat (most of records made at two years of age) and sire of the First Prize "get of sire" at the National dairy show.

The dam of Florham Laddie 20431 is Golden Lassie of Paxtang 24696 A. R. 1377 with A. R. record of 14413.65 lbs. of milk and 715.38 lbs. of fat. His full sister made 583.67 lbs. of fat at two years.

Daughters of Florham Laddie are just coming in milk and are showing great promise.

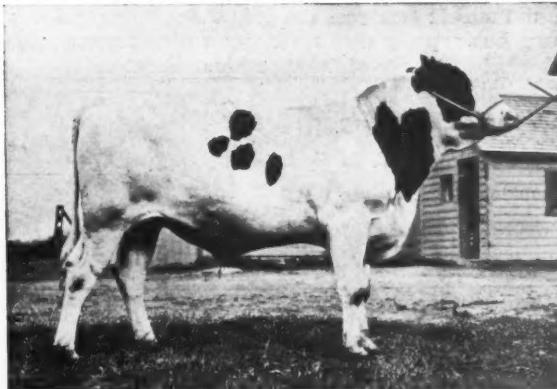
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His dam has an A. R. O. record of over 34 lbs. butter in 7 days at 4 yrs. of age and she is by a brother of the first 40 lb. cow.

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H. B. & B. F. Wadsworth, McGraw, N. Y.**

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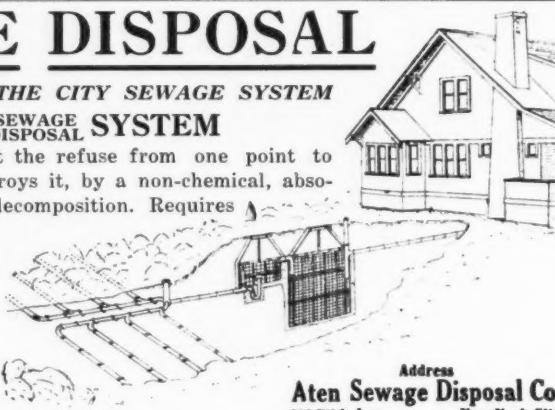
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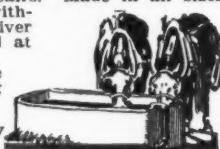
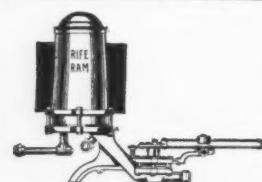
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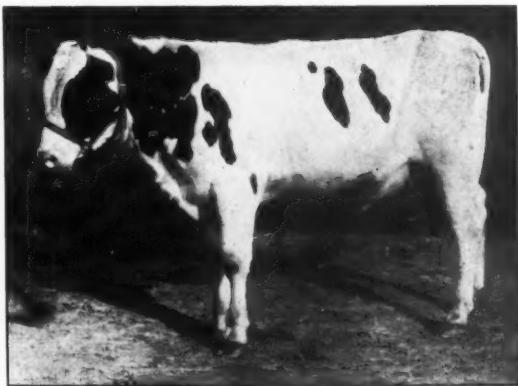
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FRIDAY, FEBRUARY 16th, 1917

It will include
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He is Good Enough to Head Any Herd.

His sire is a son of the noted King Segis. His sire's dam—Annie DeKol Koningan has a 7-day butter record of 30.91, and her dam Annie DeKol Butter Girl, a record of 31.43. His dam—Glista Corea—has a 7-day record of 34.08, and is the best daughter of the famous bull, Prince Ybma Spofford 6th, six of whose eight living daughters have records in excess of 30 pounds of butter in a week. Glista Coreva's dam, Glista Beta, was one of the foundation cows of the herd with a record of 21.26 and has five A. R. O. daughters, two of them with records of over 30 pounds. His six nearest female ancestors average 27.90 pounds of butter in 7 days.

Also two other sons of thirty pound dams, several well bred females, about 15 young grade draft horses, a draft of well bred Shropshire ewes in lamb and some choice Cheshire sows in pig.

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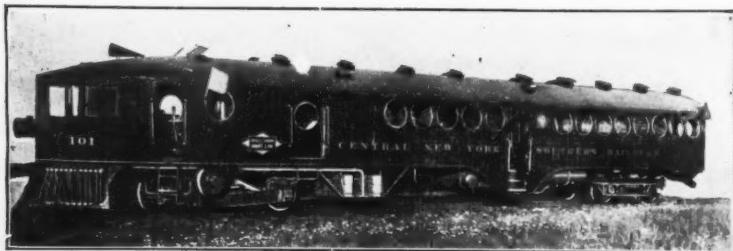
for \$150 each. One of the number is a granddaughter of Pontiac Korndyke and Admiral Prilly Walker—two noted sires of the breed. The other heifers are granddaughters of Tidy Abbekerker Prince—the bull who already has eight 30 lb. daughters and five proven sons. These heifers are well grown, nicely marked with good A. R. O. backing.

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We take pleasure in offering a very fine bull calf born Sept. 28, '16, sired by King Pontiac Alcartra (98887) and out of Pontiac Elaine (88803) A. R. O. 30.78 lbs. butter 7 days, milk 516.4 lbs., average per cent. fat 4.77 per cent.

This calf is $\frac{3}{4}$ white, nicely marked, very broad backed and growthy. We feel this is the kind that will make progress for you.

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Crown Pontiac Josey 101,812	28,752.3 lbs. milk	1227.7 lbs. butter
Elliston Pietertje 2nd 109,603	26,631.0 lbs. milk	1105.0 lbs. butter
Vale DeKol Elliston 87,448	24,191.1 lbs. milk	1040.4 lbs. butter
(World's Record in senior 4 year class when made.)		
Briar Pietje Abbekerk 127,718	21,628.3 lbs. milk	955.9 lbs. butter
(World's Record in junior 3 year class when made)		

A.R.O. 7-Day Records---Eight Months from Calving

Elliston Pietertje 2nd 109,603	520.1 lbs. milk	23.39 lbs. butter
Crown Pontiac Josey 101,812	515.6 lbs. milk	22.29 lbs. butter
Vale DeKol Elliston 87,448	450.7 lbs. milk	20.30 lbs. butter
(World's Record in senior 4 year class when made)		
Briar Pietje Abbekerk 127,718	400.0 lbs. milk	18.29 lbs. butter

KING VALE SEGIS 105,565 a son of **Vale DeKol Elliston** 87,448 (see records above) and **Segis Fayne Hengerveld** 61,809 heads the herd. Through **King Fayne Segis** 46,767 he traces directly to **King Segis** 36,169 and **Grace Fayne 2nds Homestead** 68,828, and through his sire's dam **Bloomingdale Hengerveld Ormsby** 88,658 (31.46 lbs. butter in 7 days) to **Hengerveld DeKol** 23,102.

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he was determined to make us know he had used all manner and kinds of spray materials during his Horseticultural invasion. In addition to this he had conversed with, at least, many thousand orchard growers during the few days previous to his arrival in Rochester, and though elections, wars and other pestilences were everywhere, he heard only of REX. Because of our fame and good rating he would propose to accept our contract and allow us to pay in advance for as much space as we could pay for. HE made the contract; WE make REX Lime and Sulphur Solution. Pay no attention to him, but write us at

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A Well Grown Two Year Old
Son of This Cow



SHOWED 30 TIMES TOOK 28 FIRST PRIZES

Own daughter of George Washington of Fairfield Farms

The Young Bull is Sired by

Florham Laddie 20431

(Ne Plus Ultra 15265 with 5 A. R. daughters who average 477.29 lbs. of Butter Fat at 2 years of age. Seven others also under test.
(Golden Lassie of Paxtang 24696 A. R. 1377 with 14413.65 lbs. Milk, 715.38 lbs. Butter Fat.

Florham Laddie's full sister made 583.67 of butter fat as a 2 year old and brought \$2500 at public sale.

Also a Few Good Young Cows

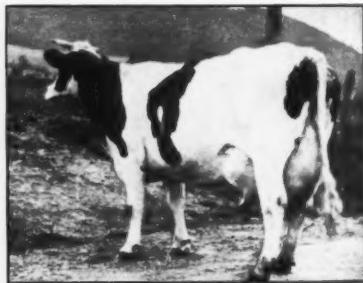
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FOR SALE—Bull Calf -- 3-4 White

His ten nearest tested dams average over 30 lbs. butter in 7 days. Four of the number have produced 30 lb. daughters that have also produced 30 lb. daughters. One of them is the only 30 lb. cow that has produced a 30 lb. daughter that has produced two 30 lb. daughters.



*Nicely
Marked
and
Well
Grown*



Sire of calf *King of the Walkers*. The average records of his 7 nearest dams is a pound higher for 7 days and 6 of the 7 average five pounds higher for 30 days than the highest priced bull of the breed.

Dam of calf *Terrace Lawn Winana*. 30.02 lbs. butter in 7 days—av. of butter fat test 6.2 per cent. She is highest record daughter of *Pietertje Hengerveld Segis* who has 70 A. R. O. daughters.

For prices and pedigrees of this bull or half brothers from A. R. O. cows phone, write or visit

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\$ \$ \$ \$

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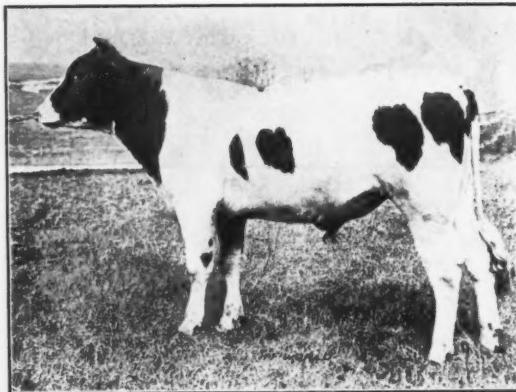
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King

Champion

No. 120303

:-:

*At the Head
of*

VALLEY FARM HERD *of* HOLSTEIN-FRIESIANS

KING CHAMPION'S Dam is DIONA KONIGEN
PIETERTJE

whose A. R. O. Records are

Butter, 7 days, 37.44 lbs.	30 days, 154.39 lbs.
Milk 7 days, 610.4 lbs.	30 days, 2651.1 lbs.

Per cent of fat 4.91 4.66

She is Dam of K. P. DIONA PIETERTJE.....Butter, 7 days, 40.11 lbs.
Milk, 825 lbs.

Her Sire is KING OF THE PONTIACS, 192 A. R. O. daughters, 17 above 30 lbs.,
two of these above 40 lbs. The only Sire of two 40 lb. cows.

KING OF THE PONTIACS is the G. G. Sire of KING CHAMPION
KING CHAMPION'S Dam, DIONA KONIGEN PIETERTJE, is the highest
record cow to produce a 40 lb. daughter.

DIONA KONIGEN PIETERTJE was sold in a public sale for \$6000, the
second highest price ever paid for a Holstein-Friesian cow in a public sale.
A son of K. P. Diana Pietertje was sold for \$35,000.

KING CHAMPION will make a very large animal. He is a fine individual,
is a nice handler, has well developed mammary veins and large rudimentaries.
His calves are exceptionally nice.

VALLEY FARM HERD, in a cow testing association, made an average yearly
production of over 11,000 lbs. of milk per cow for every animal in milk that
remained in the herd for the full year. From such stock we are offering a few
KING CHAMPION bull calves, also a few cows and heifers bred to him.

DON J. WOOD

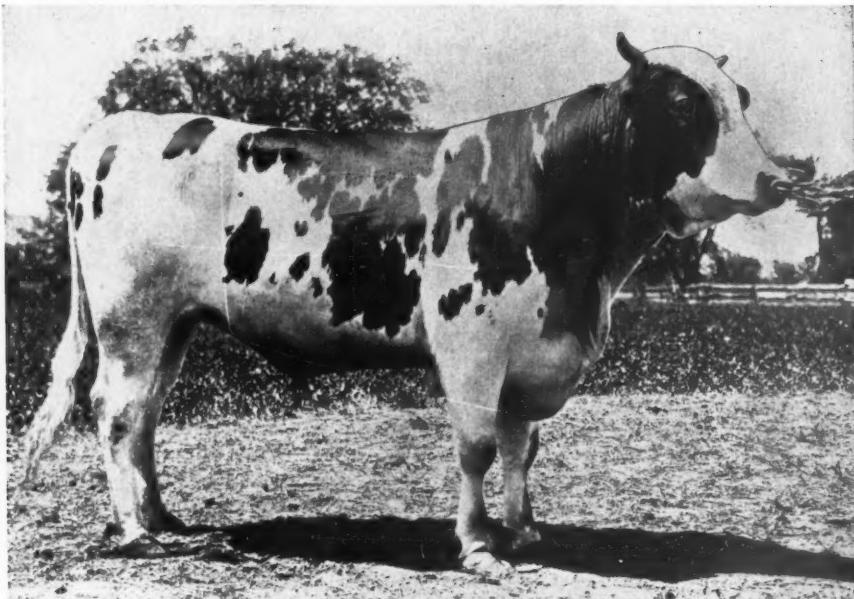
P. O. WEST WINIFIELD,

NEW YORK

Riverside Stock Farm

Senior Herd Sire

King Pontiac Boon Lilith No. 106026



SIRE, King of the Pontiacs, who is the sire of 190 ARO daughters two of which have records of over 40 lbs. butter in 7 days and 17 with records over 30 lbs. in 7 days. Dam, DeKol Boon Lilith, a 30 lb. daughter of Lilith Pauline DeKol's Count, who has over 80 ARO daughters. She is the dam of four ARO daughters, one over 30 lbs., one with 27 lbs. and one full sister to our King with 26 lbs. butter as a three-year-old.

Jr. Herd Sire, COLANTHA SIR AAGGIE HARTOG No. 162572

Sire, Colantha Sir Aaggie, who is a son of Colantha Johanna Lad with 100 ARO daughters and Aaggie Cornucopia Pauline with 34.32 lbs. butter. He is junior sire in the D. W. Field Herd.

Dam Colantha Hartog Clothilde, a 23 lb. three-year-old daughter of Colantha Johanna Lad and Abby Hartog Clothilde with 31 lbs. butter in 7 days. Aaggie Cornucopia Pauline and Abby Hartog Clothilde, the two Granddams of Colantha Sir Aaggie Hartog are two of the greatest cows of the breed, each having five ARO daughters and each the foundation of 30 lb. cows for three generations.

Colantha Sir Aaggie Hartog was 3rd prize yearling bull in a class of 16 entries and was also at the head of the 2nd prize breeders young herd at the New York State Fair in 1916.

These two sires are not only of first class breeding but they are both first class individuals.

Riverside Herd is one of the oldest in the country and has developed some of the best sires of the breed such as King Hengerveld Segis, Aaggie Cornucopia Johanna Lad and Paul Beets DeKol, also several 30 lb. cows and a number of 20 lb. two-year-olds including Edith Prescott Pontiac with 25.17 lbs. in 7 days, 101.5 lbs. in 30 days and K. H. S. Pearl with 26.19 lbs. in 7 days and 106.37 lbs. in 30 days and 198.36 lbs. in 60 days which were world's records when made for junior two-year-olds. Riverside Herd has also produced more outstanding winners and champions of the show ring than any other herd of its size that we know of.

Fellow Breeders, just improve your herd by making us a visit and choose your next herd sire or take home a few females as a foundation for a better herd. At present we have several young bulls by our senior sire whose dams are of the above breed with good ARO records. Write your wants or better still come and make your own selections. Satisfaction Guaranteed.

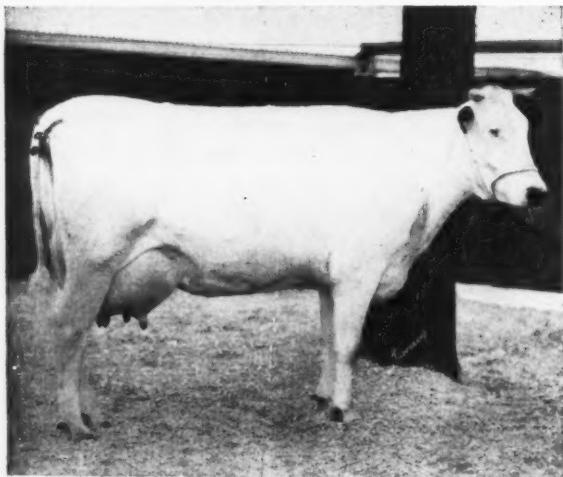
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Ormsby Jane Segis Aaggie No. 150943. As a heifer she is the Champion of the World over all ages and all breeds.

Each of the following is a world record

A. R. O. RECORD

MILK	BUTTER
114.40 lbs. 1 Day	7.39 lbs
721.50 lbs. 7 Days	44.42 lbs
3241.00 lbs. 30 Days	183.16 lbs
6231.70 lbs. 60 Days	360.31 lbs
9201.50 lbs. 90 Days	509.98 lbs
10153.00 lbs. 100 Days	566.98 lbs

Females of all ages and two 30 lb. bulls for sale. Write for prices or visit the barns and see our herd sire—**Orsmby Jane King.**

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CORTLAND, **NEW YORK**

Holstein-Friesian Cattle

Senior HERD SIRES

CHANGELING BUTTER BOY No. 41398

78 A. R. O. Daughters 2 above 30-lbs.

Sire of—

Previous 2d Changeling	126628
butter at 6 yrs.	- - - 33.26
30 days	- - - 131.78
Butter at 5 yrs.	- - - 30.99
30 days	- - - 122.88

Grandsire of—

Katie Pieterje Paul	5th	160884
Butter at 6 yrs.	- - -	33.74
Ruby Pieterje Butter Boy	216705	
Butter at 3½ yrs.	- - -	29.62
Roxie Pauline D. K. Posch	4th	
160885		
Butter at 6 yrs.	- - -	29.06
(all three not yet reported)		

SIR CHANGELING HENGERVELD, No. 147549

Sire—Dutchland Empress Sir Hengerveld—a son of Dutchland Sir Pontiac Rag Apple.

Dam—Previous 2d Changeling

We also have 30 daughters of Tidy Abbekerk Prince 37770 who has 80 A. R. O. daughters 8 above 30-lbs.

JUNIOR HERD SIRES

**KING OF THE CHANGELINGS 180491 a 33.26 lb. son of
THE KING OF THE PONTIACS**

**IT ORMSBY CHANGELING 180911 whose three nearest
dams average 31.29**

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